THE YEAR BOOK OF EDUCATION

1959

1478

59.

A 50-4

1478

115/2

P064

Y32

~~4684~~

4776

2-8-9

OXFORD
NEW DELHI
BOOK & STATIONERY CO.

THE YEAR BOOK OF EDUCATION

1959

©
Copyright Evans Brothers Limited, 1959

THE YEAR BOOK OF EDUCATION

1959

Higher Education

JOINT EDITORS

GEORGE Z. F. BEREDAY, Ph.D.
Teachers College, Columbia University

JOSEPH A. LAUWERYS, D.Sc., D.Lit., F.R.I.C.
University of London Institute of Education

BUREAU OF EDNL. & PSYL. RESEARCH : :
LIBRARY

Published in association with
THE UNIVERSITY OF LONDON INSTITUTE OF EDUCATION
and TEACHERS COLLEGE, COLUMBIA UNIVERSITY, NEW YORK
by
EVANS BROTHERS LTD., RUSSELL SQUARE, LONDON

K
370.58
BER

Bureau Ednl. Research
DAVID ... GE
Dated 1. 6. 60.
Acc. No. 1478

EDITORIAL BOARD

London

H. L. ELVIN, M.A.
Director, University of London Institute of Education (Chairman).

E. NOEL EVANS, M.A.
Managing Director, Evans Brothers Limited.

SIR ROBERT EVANS
(*Founder of* THE YEAR BOOK OF EDUCATION).

A. V. JUDGES, D.Sc.(Econ.)
Professor of History of Education, University of London King's College.

C. A. W. MANNING, M.A., B.C.L.
Montague Burton Professor of International Relations in the University of London.

LOUIS ARNAUD REID, M.A., Ph.D., D.Litt.
Professor of Philosophy of Education in the University of London.

New York

HOLLIS L. CASWELL, Ph.D., LL.D., Pd.D.
President, Teachers College, Columbia University (Chairman).

KARL W. BIGELOW, Ph.D., L.H.D., LL.D.
Professor of Higher Education, Teachers College, Columbia University: American Editor, International Review of Education.

MAX R. BRUNSTETTER, Ph.D.
Professor of Education, Managing Editor of Bureau of Publications, Teachers College, Columbia University.

R. FREEMAN BUTTS, Ph.D.
William F. Russell Professor of Education, Director of the Division of Foundations of Education, Teachers College, Columbia University.

STEPHEN M. COREY, Ph.D.
Dean, Teachers College, Columbia University.

LAWRENCE A. CREMIN, Ph.D.
Professor of Education, Head of the Department of Social and Philosophical Foundations of Education, Teachers College, Columbia University.

WILLIAM C. FERGUSON
President, World Book Company.

ASSISTANT EDITOR

BRIAN HOLMES, B.Sc., A.Inst.P.
University of London Institute of Education

All rights reserved

PRINTED AND BOUND IN ENGLAND BY
HAZELL WATSON AND VINEY LTD
AYLESBURY AND SLOUGH

CONTENTS

PAGE

INTRODUCTION
By the Chairmen xi

EDITORS' INTRODUCTION: THE HIGHER LEARNING 1
George Z. F. Bereday, Brian Holmes, Joseph A. Lauwerys

SECTION I: ADAPTATION OF UNIVERSITY TRADITIONS

EDITORIAL INTRODUCTION 44

Chapter One
THE IMPACT OF THE MEDIEVAL UNIVERSITY UPON THE MODERN: THE CASE OF AUSTRIA 48
Richard Meister, Dr. phil., Dr. juris., emeritierter ordentlicher Universitätsprofessor, Präsident der Österreichischen Akademie der Wissenschaften; ordentlicher Professor der Pädagogik und Kulturphilosophie an der Universität Wien

Chapter Two
NEW PROFESSIONAL DEMANDS IN EUROPE 58
N. Hans, Ph.D., D.Lit., formerly Reader in Comparative Education, University of London King's College

Chapter Three
THE RISE OF CIVIC UNIVERSITIES IN ENGLAND 69
W. H. G. Armytage, M.A., Professor and Head of the Department of Education, University of Sheffield

Chapter Four
TRADITION AND REFORM: UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE 81
F. A. Vick, O.B.E., Ph.D., A.M.I.E.E., F.Inst.P., Professor of Physics, University College of North Staffordshire, Honorary Secretary, The Institute of Physics

Chapter Five
THE DEVELOPMENT OF UNIVERSITIES IN AUSTRALIA 95
W. F. Connell, Ph.D., M.A., M.Ed., Professor and Head of the Department of Education, University of Sydney

Chapter Six
THE HISTORICAL BACKGROUND TO HIGHER EDUCATION IN THE UNITED STATES 108
I. L. Kandel, M.A., Ph.D., Litt.D., LL.D., Chevalier, Légion d'Honneur, Professor Emeritus of Education, Teachers College, Columbia University; Emeritus Professor of American Studies, University of Manchester

Chapter Seven

PAGE

THE CONTEMPORARY ACADEMIC SCENE IN THE UNITED STATES 122

Robert Ulich, Dr.phil., A.M., Litt.D., James Bryant Conant Professor of Education, Harvard University; formerly Counselor in charge of Universities in the Ministry of Education, Saxony, and Professor, Dresden Institute of Technology

Chapter Eight

AMERICAN UNIVERSITIES AND LIBERAL EDUCATION 131

John S. Brubacher, A.B., Ph.D., Professor of Education, University of Michigan; Visiting Professor, American University of Beirut, Lebanon, and Kyushu University, Fukuoka, Japan

Chapter Nine

CHANGING AIMS AND OBJECTIVES OF THE UNIVERSITIES IN LATIN AMERICA 142

Julio Larrea, D.Sc. Ed., Professor, National University of Tucuman, Argentina; Professor, University of Chile

Chapter Ten

THE INFLUENCE OF COMMUNISM IN YUGOSLAVIA 159

Josip Lukatela, Diploma, Faculty of Science, Zagreb University, President, Republican Council of Education, Croatia; formerly Assistant Lecturer at the Institute of Physics, Zagreb University

SECTION II: THE PRESENT POSITION OF PROFESSIONAL STUDIES IN HIGHER INSTITUTIONS

EDITORIAL INTRODUCTION 170

Chapter One

PROFESSIONAL EDUCATION IN SWEDEN 176

Elof Åkesson, Fil.Dr., Assistant Professor of Philosophy, University of Lund; Professor of Psychology and Education, Institute of Education, Lund

Chapter Two

PROFESSIONAL STUDIES IN THE UNIVERSITY AND IN SPECIAL PROFESSIONAL SCHOOLS—FRANCE 197

Roger Thabault, Docteur ès lettres, Inspecteur général de l'Instruction publique; formerly Directeur de l'Instruction au Maroc

Chapter Three

PROFESSIONAL STUDIES IN THE UNIVERSITY AND IN SPECIAL PROFESSIONAL SCHOOLS—BRAZIL 211

M. B. Lourenço-Filho, Bachelor in Social Sciences and Law, Ph.D., Professor Emeritus, University of Brazil, Rio de Janeiro; formerly General-Director of National Department of Education, and President, Brazilian Institute for Science, Education and Culture

PAGE

Chapter Four
THE EMERGENCE OF COLLEGES OF ADVANCED TECHNOLOGY IN BRITAIN 224
P. F. R. Venables, Ph.D., B.Sc., F.R.I.C., Principal, College of Technology, Birmingham

Chapter Five
AMERICAN ENGINEERING EDUCATION; AN ANALYSIS AND APPRAISAL 237
James K. Finch, C.E., A.M., D.Sc.(Hon.), Renwick Professor of Civil Engineering, Emeritus, and Dean Emeritus, School of Engineering, Columbia University

SECTION III: PROBLEMS OF CONTROL, FINANCE AND ORGANIZATION

EDITORIAL INTRODUCTION 242

Chapter One
FORMULATION OF POLICY IN AMERICAN COLLEGES AND UNIVERSITIES 246
R. Freeman Butts, B.A., M.A., Ph.D., William F. Russell Professor in the Foundation of Education, and Director of the Division of the Foundations of Education, Teachers College, Columbia University

Chapter Two
ORGANIZATION AND CONTROL OF UNIVERSITIES IN THE U.K. 264
Sir Charles Morris, M.A., Hon.LL.D., Hon.D.Litt., Vice-Chancellor, University of Leeds; formerly Fellow and Tutor of Balliol College, Oxford

Chapter Three
THE RELATION OF TEACHER TRAINING COLLEGES OF ENGLAND TO THE UNIVERSITIES 277
Willis Dixon, M.A., B.Litt., Ph.D., Secretary, University of London Institute of Education

Chapter Four
THE FINANCE OF HIGHER EDUCATION IN THE UNITED KINGDOM 289
John Vaizey, M.A.(Cantab.), M.A.(Oxon.), formerly Fellow of St. Catharine's College, Cambridge

Chapter Five
THE FINANCE OF HIGHER EDUCATION IN THE U.S.A. 312
Thad L. Hungate, Ph.D., Controller and Professor of Education, Teachers College, Columbia University

Chapter Six
ORGANIZATION AND FINANCE OF UNIVERSITIES IN ITALY 329
Luigi Volpicelli, Professor and Director of the Institute of Pedagogy, University of Rome

Chapter Seven

PAGE

ORGANIZATION OF INSTITUTIONS OF HIGHER EDUCATION IN LEBANON 334

George D. Shahla, M.A.(Beirut), M.A.(London), Professor of Education, American University of Beirut, Beirut

SECTION IV: ACADEMIC FREEDOM

EDITORIAL INTRODUCTION 362

Chapter One

ACADEMIC FREEDOM AND THE UNIVERSITIES IN THE U.S.A. 367

H. Gordon Hullfish, A.B., M.A., Ph.D., Professor of Education, Ohio State University; Fulbright Lecturer, 1958–9, Tokyo University of Liberal Arts, Ochanomizu Women's College

Chapter Two

THE INFLUENCE OF STUDENT CULTURE AND FACULTY VALUES IN THE AMERICAN COLLEGE 386

David Riesman, LL.B., LL.D., Henry Ford II Professor of Social Sciences at Harvard University; formerly Professor of the Social Sciences, University of Chicago

Chapter Three

FREEDOM IN THE ARGENTINE UNIVERSITIES BEFORE AND AFTER THE PERÓN REGIME 405

Juan Mantovani, Profesor de Enseñanza Secundaria Normal y Especial en Ciencias de la Educación: Profesor titular de la Facultad de Filosofia y Letras de Universidad Nacional de Buenos Aires

Chapter Four

PROBLEMS OF FREEDOM IN UNIVERSITY EDUCATION IN SOUTH AFRICA 416

O. F. Raum, B.A., Ph.D., Professor of Education, University College of Fort Hare, C.P., South Africa

Chapter Five

A CASE STUDY IN EAST AFRICAN HIGHER EDUCATION—MAKERERE 433

Norman Larby, O.B.E., M.A., Dip.Ed., formerly Deputy Director of Education, Kenya

Chapter Six

THE UNIVERSITY OF TASMANIA AND A DISMISSED PROFESSOR 441

J. L. Montrose, LL.B., Dean, Faculty of Law, The Queen's University of Belfast

SECTION V: RELATIONS BETWEEN INSTITUTIONS OF HIGHER LEARNING AND OTHER INSTITUTIONS

PAGE

EDITORIAL INTRODUCTION 454

Chapter One

THE RELATION BETWEEN SECONDARY SCHOOLS AND UNIVERSITIES —DENMARK 457

F. C. Kålund-Jørgensen, M.A., State Adviser to the Ministry of Education, Denmark

Chapter Two

ALTERNATIVE PATHS TO THE UNIVERSITY—GERMANY 475

Ludwig Kiehn, Dr.Phil., Professor für Beratspädagogik an der Universität, Hamburg

Chapter Three

RELATIONSHIP BETWEEN SECONDARY SCHOOLS AND UNIVERSITIES —INDIA 484

K. G. Saiyidain, B.A., M.Ed., Education Secretary, Government of India; *and*

A. R. Dawood, B.A., LL.B., B.T., Deputy Director, All India Council of Secondary Education, New Delhi

Chapter Four

ACCESS TO INSTITUTIONS OF HIGHER LEARNING—NEW ZEALAND 494

Hubert Henderson, M.A., B.Sc., formerly Superintendent of Education, Auckland, New Zealand; Unesco Adviser in Compulsory Education in Lebanon, Jordan, Iran and Iraq. 1956–8

Chapter Five

THE SOCIAL COMPOSITION OF UNIVERSITY STUDENT BODIES—*The Recruitment of Nineteenth-Century Élites in Four Nations: A Historical Case Study* 502

C. Arnold Anderson, Ph.D., Director, Comparative Education Center, University of Chicago; Professor of Education and Sociology

Chapter Six

COMMUNITY COLLEGES IN THE U.S.A.—*A Link between School and University* 507

Ralph R. Fields, A.B., A.M., Ed.D., Professor of Education and Director, Division of Instruction, Teachers College, Columbia University

LIST OF CONTRIBUTORS 514

INDEX 515

INTRODUCTION

THIS is the twenty-first issue of the YEAR BOOK OF EDUCATION, and the seventh under the joint sponsorship of the University of London Institute of Education and Teachers College, Columbia University. In this volume the attention of our contributors is directed to the problems of higher education throughout the world. But in accordance with our policy in recent years, the concern of the Editors has not been to present a comprehensive picture of the organization of studies and methods of control of the various institutions that might be regarded as providing education beyond the secondary school level: other international publications serve that purpose very well. We have rather tried to throw light on certain crucial problems of higher education through theoretical articles and selected case studies. Four of these problems in particular emerge from the articles presented in this volume.

The first concerns the 'universality' of university studies, especially in relation to technological education. Are the universities to accept the task of preparing leaders for all the spheres of professional activity in our increasingly complex societies, or should some of these be prepared in special institutions, only loosely connected with the universities and more directly controlled by governments in accordance with their own ends? In an age of expanding facilities for higher education, especially on the scientific and technological side, shall this expansion be very closely related to the needs of society as governments see these needs, or shall it remain within the tradition of academic freedom and consumer's choice generally associated with the universities?

The second question is what kind of professional education should be provided by universities, and what relation this should have to more general and 'liberal' studies. Educational opinion in Western countries has been preoccupied of late with the experience of the U.S.S.R. (Let us say, incidentally, that it is to be regretted that more articles have not been received from Communist countries, for that would have enabled a more comprehensive view to have been taken of this problem.) Many people in Western countries, impressed by the dramatic success of the 'sputnik' and by other Russian achievements in technology, have insisted that we too must concentrate on technological education as the Russians have done. Others have said that too high a price can be paid for such a concentration, both in terms of education itself and in terms of the freedom of the student and the professor to develop their own intellectual concerns. And, as a corollary, many people have been asking whether Russian experience bears at all on the difficult problem of the relative teaching and research effort to be made in the basic sciences as distinct from applied science and technology.

The third question is one of numbers in relation to educational resources when these are limited. What proportion of a population needs higher professional training if that country is to make the optimum effort within given resources for the improvement of its material standards of living? And as corollaries to this, there are two other important questions. First, how can it be ensured (so far as education can ensure it) that technically equipped professional leaders are at the same time men and women of such wide intellectual and social horizons that they can lead their peoples and not merely their professions? And secondly, have the universities a responsibility towards those who do not come within these higher echelons, but are needed by society as well-equipped persons and well-informed citizens and have their rights as persons no less than those who, professionally, may have more skill to contribute?

The answer to such questions leads directly to our fourth problem, so far of immediate importance only in the United States, but likely to become an issue soon also in other countries. Should college education become available to all who wish such opportunities and can profit from them? With the arrival of economic abundance, the expanding range of white collar and technical occupations and the spread of secondary education, the demands for access to higher education are likely to increase everywhere. In democratic societies, at least, this will mean a rapid expansion of existing institutions of higher education as well as the creation of new ones. What are the implications of such changes for the traditional academic subjects and academic standards? What solutions will be forthcoming to increase the supply of college teachers? How should the problems of financing such a large scale enterprise be met?

This volume has been organized with such issues in mind. Since this has been our aim, no attempt could be made at a proportionate distribution of articles among the different countries represented. Special problems have been our concern, and they have been illustrated by case studies where these seemed most significant or where (and hence the preponderance of articles from our own two countries) they were easiest of access.

In conclusion, we wish once more to re-state our editorial policy: that, while the Editors accept responsibility for the choice of writers for this volume, they have left each contributor entirely free to write out of his own experience and with no suggestion of censorship whatever from the Editors. Accordingly, the responsibility for each article rests with the author over whose name it appears.

HOLLIS L. CASWELL
President: Teachers College, Columbia

H. L. ELVIN
Director: Institute of Education, London

The Higher Learning

In the most beautiful mosque of Fez, the ancient Karawain University continues its work precisely as it has for many centuries. Standing by a pillar, surrounded by students seated on the floor, subtle and learned men discuss verses taken from the Qur'an, considering with infinite care the possible meanings of words and phrases, spinning laborious webs of learning. Their intention is both metaphysical and social. Contact with the words of the Prophet ennobles the human spirit. In addition, the students are the future judges and rulers of their nation. They should therefore understand the principles which when rightly applied must lead to the triumph of truth and justice. No part of the curriculum offered has any connexion whatever with the techniques or modes of thought which are the bases of industrial production. Indeed, almost the opposite is true. The students pick up, more or less accidentally, the general knowledge and the ideas current in the eleventh or twelfth centuries; for example, that the earth is flat, stands still, and is the centre of the Universe.

Contrast all this with the School of Dentistry or of Engineering in a modern university. Here, young men and women pick up the skills and the theoretical knowledge that will be needed to increase production of material goods or to improve human health and comfort. Novelty and research are prized more highly than tradition and verbal fluency. Manual dexterity is desired, not despised. Practical activities are encouraged. Action, not contemplation, is the aim. What have these modern institutions in common with Karawain, or with the Academy of Athens, the Buddhist monasteries of Burma, the medieval halls of Padua? Are we right in classifying together American Agricultural and Mechanical Colleges, Russian Pedagogical Institutes, the colleges of Oxford, and the new Roma College in Basutoland? Are we obscuring the issues when we apply the same term—'university'—to institutions which are composed of the children of a few wealthy Latin-American families and to others which consist of all high school graduates who request admission, as happens in parts of the United States? In the sphere of higher education, in spite of the deceptive simplicity of popular usage, the problems of definition are exceedingly difficult.

The old—shall we say European—definition is straightforward: 'A university is a community of scholars who must guard, expand, and perpetuate knowledge.' In the words of Stephen d'Irsay: " *C'est l'orgueil de la vie intellectuelle, le sentiment du travail commun dans un cadre moral qui leur donne cet esprit de collectivité, dont le monde, hors des murs, commence déjà à reconnaître la superiorité.*" It was the gathering of scholars into medieval corporations for the sake of the common pursuit of knowledge that gave the universities of to-day their prototype organization. To be sure, the need for protection against enemies and competitors was an important factor, too; much of the early history of universities centres on bishop-chancellor or town-gown feuds. Gabriel Compayré describes how, when Oxford tried to move to Nevers in France in 1320, the inhabitants of that city threw the rector's chair in the Loire, hoping that, borne by the waters of that stream, and ' with the assistance of the devil ', it might return to the city whence it came. But local problems cannot obscure the growing national importance of the universities. It is relevant to reflect how powerful and effective even in those times the *cessatio*, the right of suspension of lectures, had become, and how closely it resembled the parallel and much-dreaded church interdict. The organization patterned on the knightly *communitas* and the town guild, when filled with scholars and infused with the dignity of intellectual pursuit, gave birth to the institution whose features permeate all its various later educational offsprings.

But now that time-honoured concept of the university begins to wear thin even in the Western world in which it originated and prospered. Is the faculty of a National College of Horology in England a community of scholars? And if not, why is the faculty of the Imperial College of Technology? Are the giant mid-western American aggregates of libraries, dormitories, experimental farms, and athletic stadia less of a university than the dreamy English quadrangles? How do we distinguish the great teaching hospitals of London from the dental technicums of Moscow?

One is tempted to go to the other extreme, therefore, and say that all types of formal education catering for young adults constitute the realm of higher education. But does adulthood start at the age of 18, the most common leaving age in secondary education, or at 21, the most common legal age of maturity? If we accept the latter, this would rule out undergraduate studies almost everywhere. But should the former be adopted we would have to include not only the growing junior college movement in America, but also the senior *lycée* classes in France, parts of the *Berufschulen* in Germany, all of the Folk High Schools in Scandinavia. Clearly, the age of students is no help to us in deriving the desired definition. Nor is the insistence that we limit ourselves to institutions which supply their students with professional preparation. This would still require the separation, as professional or non-professional, of institutions training for such occupations as accountants, engineers, or nurses, all of which dispense post-secondary if not orthodox higher education. It would also require a dangerous narrowing of the concept of liberal education which some regard as the main feature of the university. It is true that liberal studies have in many cases meant no more than specific professional preparation. But this has been in violation, not in confirmation, of the old university concept of knowledge for its own sake. The modern university is an unwieldy conglomerate which houses communities of scholars and non-scholars, teaches general and specialized knowledge, and caters to people of an indeterminate age-range.

Fortunately, however, the difficulties of definition enhance the value of a comparative treatment of higher education. If uniform terms of reference are impossible, some approximation to them can be made by analysing similarities and differences between national definitions. It may be found that what the French *Recteur d'Academie* and the Soviet Minister of Higher Education have to say on the subject contains enough of a common core to surprise those familiar with the great differences in purpose and organization of post-secondary education in the two countries. The same theme runs through the statements made by the nationals of various countries, and it gives us an understanding of the nature of higher education even though precise definition is difficult. Thus we felt no hesitation in following the 1958 YEAR BOOK, which dealt with secondary education, by a volume logically extending our interest into the post-secondary field. Our purpose was not to define but to provide some account of the functions of institutions of higher learning in several countries, as defined by those countries themselves. The result is a world picture of the patterns of educational institutions beyond the secondary school level, as well as of the problems and difficulties they face.

Comparative Studies of Institutions

Our analysis necessarily starts with a study of those institutions of higher learning or of advanced professional preparation which call themselves 'universities'. Whatever the nature and functions of ancillary institutions, whether statistical or research institutes or teaching hospitals or institutes of technology, it is the 'university' which dominates and sets the pattern. Furthermore, the universities have played a part in the social, political, and economic evolution of countries everywhere. Frequently in the articles presented these effects appear more by implication than by direct analysis, for the attention of our contributors was not specifically directed to them.

Without doubt, the prototype of practically all institutions of higher learning to-day is found in the medieval European university. Modern varieties, wherever found, show some of the weaknesses and also some of the strengths of those seats of learning and teaching which first appeared in Italy and then spread throughout Europe. There are other important non-European examples of institutions which, like the university, prepared men for public life. Yet to-day—although in some cases attempts are made to revive them for cultural reasons—they do not, and perhaps never will, play the role now assigned to the institutions created in the image of Europe's most cherished educational legacy.

In assessing the influence of the university on social patterns it is necessary to remember that attempts have been made to copy as faithfully as possible the prototype. But circumstances have moulded the institutions into different shapes, so that the Indian universities founded as copies of London University are in important respects different from the latter, just as Rhodes University in South Africa differs very much from its Oxford model. Similarly, whilst the North American universities show clear marks of their European ancestry, significant mutations have occurred during the process of their evolution from the clerical colleges of the colonial period to the mass-education institutions of the mid-twentieth century. Thus our interest in comparative study is in the past and present interplay of an important institution not only with similar and co-terminous institutions but also with the larger social environment.

A comparative study of this kind deals with relationships. First there are the relationships which exist in any national system between the various levels of education—say, the primary, the intermediate, the secondary, the tertiary. Each part of the whole has its complex of subsidiary institutions, such as the curriculum or the system of administration and organization of schools, and these, too, help to determine the relationships that exist within the total system. In addition, however, the educational system itself is in relationship with the political, economic, and social aspects of the wider national scene. Thus, the political ideology of a government may, or may not, have a direct impact on certain aspects of education; for instance, the *Apartheid* policy of the present South African Government is having tremendous repercussions. On the other hand, educational development inevitably takes place within an economic framework and in the light of national economic policies. Finally, there are important relationships between education and the class or power structure of society. It is the object of comparative study to throw light, as far as this is possible, on the various relationships that exist in any country or cultural area. Its second purpose, however, is to assess the operation of the same or a similar institution in a variety of cultural settings. Circumstances are obviously likely to modify the character of the relationships. That, for instance, the British jury system transplanted in Burma operated very differently there, serves only to illustrate a simple but important point—comparative studies imply that institutions must be studied within their cultural context.

In the context of European tradition the relationship between the secondary schools and the universities is still very close—traditionally they formed one closely knit system. Entrance to the universities is frequently dependent upon a candidate's success in specified examinations, preparation for which is provided at secondary schools. If the entrance examinations are directly under the control of the universities the influence on school curricula is substantial and direct. On the other hand, the prestige accorded to certain subjects by notable universities influences schools in the kind of curriculum they offer. This relationship then operates through a highly complex pattern of prestige-determining institutions and social groupings. If traditionally the universities were able to dominate secondary schools, to-day things are changing. Modifications have taken place more rapidly in some countries than in others, and it is part of our task to indicate the direction of change and its significance. All this does not necessarily imply that the traditional prestige enjoyed by the universities, and through which much of their influence is exerted, has declined. But its character may well have changed and with it the chain of institutions, of which the secondary school is an important link.

Social prestige is, of course, one consequence of the role and function of the universities. Since their foundation their influence on the economic and political life of Europe has been profound. Perpetuators of tradition—their own and those of a cultural area—moulders of opinion and yet frequently the seed-beds of heresy, they have had an impact at two levels or, rather, in two ways. First, the normative: in the sphere of ideas, ideology, and theory. As part of this should be included the practical achievements in the field of science and technology which have flowed from original research. But secondly, the universities have also exerted a strong influence as power-institutions: through their relationships with church, state, and the various representative groups within any society they have been able to exercise genuine political power. Here the example of Cambridge and Sir Isaac Newton in the Alban Affair, one of the chief causes of the downfall of James II, could be quoted as an illustration.

It is probably important to distinguish between historical eras in which this kind of power has been wielded more or less overtly and those in which it has been possible for the universities to influence policy only indirectly. It should nevertheless be remembered—and subsequent discussion will touch on this—that by the nature of their origins the universities have always provided, for the service of state or church, highly influential men. Thus, whether or not they have been able to function as institutions, their influence has always been felt through their alumni.

There is, however, another reason for studying the universities comparatively. Everywhere in the world are to be found institutions which bear some resemblance to the medieval universities of Europe. They have been copied either as the result of deliberate policy or have grown up to meet similar demands to those which furnished the *raison d'être* of the first European universities, namely vocational and professional training at the highest level. In the New World, in Asia, in Africa, and indeed wherever European colonists found it necessary to provide some kind of education for some of their subjects, institutions like the ones they knew in Europe have grown up. The pattern has of course varied. At Bombay, New York or Cape Town, institutions were set up on the pattern of the evolving British universities. We see how symbolic of Spanish colonialism were the Universities of San Marcos and of Guatemala, two of the earliest Latin-American universities. But colonialism was not the only force under which European-type universities developed outside the cultural area which gave them birth. After the Meiji Restoration the leaders of the new Japan decided to develop institutions through which their backward country could become a nation able to compete with the Western powers on its own terms. As a matter of deliberate policy these inspired leaders took the Napoleonic system of university organization as their model, thus providing a centralized administration and control through which a strongly progressive university policy could be pursued. More recently the Government of Australia invited an investigating committee to study its university system and make recommendations on possible reforms. One suggestion was that a system of finance similar to that operated in England through the University Grants Committee should be set up. Generally the desire to borrow from foreign university practice continues in many countries to-day, though the full implications of the process are not always appreciated. It is this fact which gives high significance to the comparative study of universities.

The development of institutions of higher learning is going on apace everywhere. Several possible prototypes exist within the European pattern from which to choose. It should be possible on the basis of a developed science of education to predict, at least in general terms, the consequences to any country of adopting one or other of the models.

In order to study an institution in the manner suggested, certain methodological principles seem important. One is that the relationships mentioned might exist within a least two different frameworks.

The first might be termed the ideological or imperative. It includes the stated aims and ideals of university work and the principles on which the university is organized. This configuration of norms might be analysed in its relations with the wider normative patterns of society generally and of a particular nation. For example, the concept of knowledge for its own sake is one which motivates many European scholars. It is a belief which has firm adherents in the various echelons of educational activity and in society generally. That is to say, people in a variety of walks of life are likely to pay at least lip-service to the traditional concept: this is apparent even in the U.S.A. W. H. Whyte, in *Organization Man*, points out how many top executives claim that they wish to employ as executives in the lower managerial positions young men whose education has been broad and in the liberal arts. They do not wish, so they claim, narrowly professionally trained men. In any analysis of these norms the most general should be distinguished from those which operate at the lower, more specific and practical, level in the twentieth century. We might note that the 'higher', most general, norms very often conflict with the more specific theories on which actual university practice tends to be based. But this distance between 'higher' and 'lower' valuations is not restricted to universities. It is, as Myrdal has pointed out, a characteristic of many societies, and it is more apparent in some than in others.

The second framework suggests the possibility that practical institutional arrangements are ineffective in achieving stated aims and objectives. This might be a result of the imperfect relationship of theory and practice or the result of a complex of institutional arrangements and social pressures. To some extent, for example, English universities can raise their entrance requirements only to a level which can be reached by secondary school pupils. Similarly, state legislation in the U.S.A. could make selection processes at the state colleges virtually impossible. Where this in fact occurs, it creates problems of teaching in the freshman year and has repercussions throughout the whole college course. As mentioned before, university arrangements cannot be isolated from the general institutional pattern.

Normative Pattern of Universities

It is fruitful to examine briefly the concepts which are widely held as essential to the proper functioning of a university. They developed in the medieval universities whose primary task was to teach. They grew up to meet specific social and personal demands which determined what was taught. At the time, social organization had begun to create a demand for professionally trained people. In the ninth century Salerno attracted men to study medicine. Somewhat later Bologna became a centre of legal studies. There is little doubt that the growth of these studies reflected developments in social and economic life. It was, however, north of the Alps that universities primarily concerned with the study of theology were established. The key to an understanding of the growth of European universities is found in the concept of professional training and the demand for personnel so trained. These men were undoubtedly to become leaders in a European society the complexity of which was increasing. The kind of studies which were provided in the universities of those days indicates what was thought desirable for future leaders and administrators. Already the training necessary if a man was to perform his civic duties efficiently had been discussed by the Greeks. In particular the views of the Platonic-Aristotelian school of thought had won prestige throughout Europe. The debates between the followers of the one and the other were to determine the evolution of philosophical discussion at least until the time of Descartes and Locke, and inevitably among less eminent men until much later in history.

The kind of knowledge worthy of attention had already been described and formulated. It included, virtually, all that was known in the ancient world. It involved an acquaintance with the questions which politically minded Greeks had asked, and thus it demanded that the educated man should have definite views on the nature of man, of society, and of knowledge, as well as of the relationships that existed between them. The basis of all this was to be found in the trivium and quadrivium. Syllogistic reasoning provided a method for acquiring rational knowledge of reality.

At first, in medieval Europe, students gathered to listen to teachers of renown, whose position was consequently precarious. Students were determined to exercise their right of veto, and since at first the master was dependent on fees, what was taught and by whom depended a great deal on the wishes of students. Capricious choice was to some extent controlled by the practical value of what was offered. Students no doubt wished to participate for a few years in the general intellectual activity of their time and then to return to their duties with church, state, or other profession. Such a man was Copernicus. His own revolutionary hypotheses were matched by similar ones in other fields of learning, yet as a student his experiences must surely have been similar to those of many of his contemporaries. Perhaps he commenced his advanced studies rather late in adolescence, yet, like others, he spent many years, some thirteen or fourteen, at various universities in Poland and Italy: canon law and astronomy in Bologna and Ferrara, medicine in Padua; and we are told that he lectured on astronomy and mathematics in Rome. But his medical studies were based on Galen, surgery was still forbidden, and although heresy was in the air, Copernicus covered orthodox and traditional ground. More important than his formal studies were the opportunities he had of meeting the intellectual leaders of his time. He was the friend of humanists, bishops, university professors, mathematicians, and astronomers. Medicine and mathematical-astronomical studies were closely linked. After these experiences Copernicus returned to Poland to live the life of a canon administering the lands, trying to improve the coinage, thinking about the reform of the calendar, and, almost as a hobby, writing one of the most revolutionary books of all time.

The professional studies were universal in kind. No sharp distinction was made between those qualified in law, theology, or medicine. Some studies had been given respectability through the reputation gained by certain Greek writers, but basic to all professional topics were the liberal arts. *Studia generalia* perhaps implied rather more than the inclusion of these subjects in the curriculum. They implied that the institution also had several masters and attracted students from all parts of Europe. Even if the great schools of Italy were primarily professional, their clientele was international. This too gave its own character to these communities of scholars. The international character was recognized by the formation of 'nations'. These were fraternities of foreign students organized at once to protect and supervise foreign students within a city. At Bologna, when Copernicus was there, as many as seventeen Italian fraternities existed, and there were some eighteen from beyond the Alps. In Paris four 'nations' were established in the Faculty of Arts. This ideal of the internationalization of knowledge, that truth knows no frontiers of race or nationality or culture, remains fundamental.

Recognition of *studium generale* gave legal sanction and encouragement to the belief that through the interchange of scholars universal knowledge could be and should be disseminated. A licence to teach granted in one institution empowered a master to carry on his vocation at any similar centre that either already existed or might at some later date be formed anywhere in Europe.

The search for universal knowledge and internationalism are key concepts in universities within the European tradition. At the time of their foundation the former had, of course, clearly defined limits. The intellectualism of Plato rejecting sense experience as a reliable source of knowledge was reinforced by Aristotle's dichotomy between truly liberal studies suited to free men and the mechanic arts. No doubt there also prevailed a somewhat paradoxical view of professionalism. Only certain studies were reputable and, as against the Sophists, the idea that teachers should be paid for their services was anathema. In short, ' knowledge for its own sake ' as the norm of learning is inherent in the Platonic-Aristotelian tradition.

Certainly the interests of medieval scholars changed as time passed. Conflicts between teachers of renown remoulded traditional studies. The success of William of Champeaux in attracting students to his courses in dialectics—the ' science of sciences '—was a factor in the rise of the University of Paris, where throughout the twelfth century the study of detailed and advanced logic flourished. But the personal preferences of distinguished thinkers and their success in conflicts with other teachers tended here as elsewhere to shift the emphasis of study. Rhetoric replaced logic, for example, as the most important subject of the trivium. Out of the disputations of the scholastics one might discern the emergence of a tradition of methodical scholarship. For the Greeks, rhetoric was a professional study. It was an accomplishment necessary to the presentation of a legal case, and it had a moral and social aspect. The schoolmen, on the other hand, were less concerned with this purpose and more with methods (syllogistic reasoning) and points of detail (the nature of universals). Their disputations became increasingly esoteric, their interests more remote from immediate social problems. Their debates are characterized by a certain narrowness, not necessarily of outlook, but of objective. They take place within the limitations imposed on controversy by orthodoxy. Formalized methods of arguing a case reflect the consuming interest of the scholastics in the dialectic process.

Hindsight judgments tend to ridicule the schoolmen, who are often thought to have debated *ad nauseam* irrelevant questions. But what of modern philosophers? Their interests are in questions of a certain kind. They frequently regard as being irrelevant or non-philosophical, questions which have troubled thinking men through the ages. Their disputations are perhaps just as esoteric as those of philosophers of previous eras. The questions have changed, but the idea of focusing scholarships with precision remains.

The promotion of scholarship and of research has been a primary aim of the universities from early times. It has motivated men to fill in the gaps of established knowledge and to search for new evidence to confirm it. The concepts of scholarship and research are perhaps no longer as clear as they were. Knowledge for its own sake as an ideal set the tone of university work for centuries: the application, the usefulness of knowledge was disregarded. New interpretations of old theses were legitimate—within the prescribed limits of orthodoxy. Scholarship and research were not on the whole forward-looking but rather the reverse. They did not aim at breaking new ground, but rather at searching for antecedent causes or final purpose. But in all this, method was important, hence the deep interest in logic and rhetoric. Each profession—law, medicine, the church, and teaching—developed its own standards of scholarship but always there has been in them an inductive element.

Good scholarship implied that the scholar was familiar with all the precedents—knew all the literature—had studied all past criticism—and had located all published and unpublished documents germane to his sphere of interest. To-day, scientific research (in physics, chemistry, biology, and so on) reveals another and very different face. This is forward-looking—familiarity with previous work is ancillary to good research, not its core. There are no boundaries. Every attempt is made to break new ground—new hypotheses are welcomed. Radicalism is inherent in scientific research. Methods have changed and almost invariably include experiment. The effectiveness of scientific procedures is reflected in the anxiety of scholars in other branches of learning to make their work 'scientific'. This is particularly the case with some social scientists, who wish to make the best of both worlds. Their regard for scholarship in its medieval sense makes the authority of previous writing very important. Their frequent failure to examine the assumptions behind research methods in the physical sciences often means that they pursue research in accordance with methods which have long been abandoned by natural scientists.

The concept of 'scholarship' finds expression not only in the research carried out, and the papers produced, but also in the typical 'scholar'. Around him there has grown up a number of outlook and behaviour patterns which help to explain how and why European universities work as they do. Circumstances in the various countries have modified these patterns just as they have changed the idea of 'research'. Thus, the English 'scholar' is rather different from the continental European 'scholar', as are the criteria on which a 'scholarly' paper is judged. Later we shall point out how the actual societal role of the 'scholar' has been different in Germanic lands from that in Anglo-Saxon countries.

However strong the concept of knowledge for its own sake has been, there has also existed among university men another tradition. The Hippocratic oath charged doctors with the responsibility of performing a public service in the interests—finally—of their patients. Members were also called upon to look after 'their own'—a policy which over the centuries has met with marked success. This tradition has been generalized so that everywhere professional codes imply that members of the profession do provide such services. Personal advantage or financial gain is not given priority: the concept of public service dominates the ethics of any professional group. Each of them has accepted this responsibility and attempted—principally through the universities—to prepare its members accordingly. We have already discussed in terms of the curriculum what was thought an appropriate education for these men. But who is to judge responsible behaviour? Members of the legal and medical professions and of the church, of course, lay down their own code and have power to punish those of their members who transgress. In certain respects teachers—in universities and the schools—have accepted professional responsibility. But few of them have been drawn together into professional bodies with powers to enforce a code of behaviour and achievement. University teachers are protected by the power of their institution, and have maintained the academic concept we have outlined; but they have not been subjected to the same professional controls as doctors, lawyers, and clergymen. What should be their social responsibility? How should it be discharged? And who is to be its judge? Has the public through its spokesmen necessarily to accept a profession's own assessment of its services to humanity? Has it no right to challenge the concepts which have become part of the ideology of the European universities?

These questions force attention on a key problem as far as modern universities are concerned. The issue is that of the relationship which exists—and which should exist—between academic freedom and social responsibility. In its most general terms academic freedom implies that university men should be free to teach what they like, in the way they think best, and only to those students they are prepared to accept; that is, that they should be free to advance knowledge in accordance with their own interests and to pass it on to students in the way they themselves think best. The appointment of teachers, moreover, should be the prerogative of faculty members. Finally, academic freedom implies that admittance to the community of scholars should be in the hands of the masters and not of administrators or of any persons external to the university. Thus, in principle, in many European universities the acceptance of a student depends upon his ability to persuade a professor that he is a potential scholar and research worker. In practice, entrance to a university depends on success in prescribed examinations themselves run by the professors. But in addition, the process may be selective in the sense that individual professors (in some countries) have the power to accept or reject students applying for entry who hold minimum entrance qualifications—as in England. The tradition of personal autonomy remains strong amongst European professors. At another level, however, academic freedom implies that the institution *per se* should be free from interference by other social institutions, such as government, as regards content, teaching methods, appointment of staff, and admission of students. The institution, in short, should protect the autonomy of the individual professor and this should include protection from the demands of students. They, of course, should be equally free to attend or avoid the lectures of individual masters. Academic freedom means, then, that within a protected community a free market has been traditionally allowed to operate. Thus the reconciliation of academic freedom and of social responsibility involves individuals and also institutions. We turn to a consideration of the latter.

Academic Freedom and Social Responsibility

The maintenance of academic freedom occupies the attention of university men everywhere and always. The nature of their social responsibility is, however, less frequently debated either amongst themselves or in society generally. The problem of reconciling academic freedom with social responsibility can only be understood on the basis of an institutional study. There are two facets to this. The first would reveal the power relationships of the universities with other social institutions. The second would reveal the way in which universities can and do respond to social pressures. For this purpose it might be assumed that the ideas or principles which lie behind the work of European universities are fairly universally accepted. We might note that, in some countries, certain key principles have been rejected while others have been retained. We think, for example, of the general approach to knowledge both in America and in Russia. The climate of opinion in both countries places greater emphasis on knowledge in the interest of environmental control than is found in most western European countries. Nevertheless, the concepts of academic freedom, international co-operation, and the search after knowledge have continued to inspire universities everywhere. The institutional pressures vary enormously from country to country so that the ability of universities effectively to maintain in practice these principles also varies. Moreover, conditions external to national configurations have their effect on the operation of universities. The unique circumstances in which any group of universities operates should be analysed if the nature of the problem of academic freedom and social responsibility is to be understood. Changing political conditions, too, influence policy. To-day a previously dominating western Europe finds herself flanked on the east by a technologically and industrially advanced Russia. To the west, the U.S.A. has emerged from her position of isolation to share with Russia the centre of the international stage. The colonies of the European powers have gained or are in process of gaining their independence. Under such circumstances western Europe's freedom of action has been drastically reduced. Her educational policies now have to be formulated in the knowledge that her way of life is influenced more than ever before by the policies of her powerful neighbours and by the insistent demand of her colonial peoples for political independence and economic progress. The United Nations Charter, like the American Declaration of Independence some one hundred and fifty years earlier, gave expression at the international level to the doctrine of the natural rights of man. In these circumstances it is instructive to try to analyse, however cursorily, the power relationships of universities and to assess their relevance to modern problems.

Wherein lies the power of the universities to maintain their autonomy? In the first place it is important to note that the universities—unlike the guilds—train people for a number of professions. It is the professional competence of their members which has contributed much to the power of the universities. Finally, however, this competence or lack of it has to meet the tests of society and of individuals within it. A professional group may be able to perform unique tasks, but if the services it provides are not in demand or have become obsolete, then, in a free economy, it will decline as a group. Its organizational power derived through its association with other social groups may prolong the process but cannot, it seems, decisively prevent it. The demand for the services of the lawyers, doctors, teachers, and priests has fluctuated. Interest in them has been determined by a variety of forces, but the success of a profession in its own sphere has undoubtedly stimulated demand. Thus the power and prestige of the doctors were remarkably enhanced over the last century through their successful use of anaesthetics, synthetic drugs, and antibiotics. When social justice depends more and more on the skill of an advocate before the courts and less and less on the privilege of birth or the possession of money, the demand for lawyers rises. Similarly, when occupational opportunities depend more and more on the possession of certain kinds of training, the demand for teachers is likely to rise. On the contrary, the services offered by the clergy may be desired less. Success for a profession depends on its ability satisfactorily to meet certain demands. The ability to do this depends on the esoteric knowledge possessed by the practitioners.

This knowledge also gave the professions power in the body politic. They provided political leaders and administrators. The universities were training-grounds if not of princes then of their advisers.

In rather simple societies power is concentrated in the hands of the hereditary or elected leader. In such societies, persons with some knowledge of medicine or of astrology may become politically powerful. The witch-doctors are both healers of the sick and advisers to the chief. A characteristic of evolving social organization is that more institutions are created with increasing specialization of function. Nevertheless, until fairly recently in our own societies power has remained in the hands of a few—the members of an élite. Within the group, individuals have had their special roles to perform and in so doing have been associated with special institutions which also served a general political purpose. Thus the temporal power of the church conferred on clergymen a political influence in addition to their pastoral duties. If men like Copernicus studied all the professions, others were masters only of special subjects. As the amount of professional knowledge accumulated, so did specialism increase. In the seventeenth and eighteenth centuries, as power slipped imperceptibly away from the church, a new corps of professionally trained men was created in Europe. These were the administrators. In continental Europe their university studies were generally speaking in law, whilst in England they studied the liberal arts with emphasis on the classics. Again the universities were called upon to educate this group so that its members could discharge their duties.

The fact that the universities included within their ranks people whose training fitted them for different roles in the leadership group of European society, made them always in demand both by individuals and by political power groups. Whatever the fluctuation in fortune of the professional groups, one or other of them has always been eagerly sought after by princes and later by the leaders of political parties. Some professions have risen in status through a sudden accumulation of knowledge, others through their close links with political organizations. But such was the guild-like quality of the universities that studies which were not in demand have always been carried along, to to speak, by those which had a more direct, popular, or utilitarian appeal. In the fact that the universities are associations of professional men and do not form a single profession lies the source of their strength. There has always been competition for some of the various services the universities could offer. Consequently in societies where there has existed some balance of power between political groups they have been able to attain autonomy and to preserve their academic freedom. In Europe this was possible. Church, state, municipality, bodies of well-to-do students, and professors formed a configuration in which some balance of power was maintained. The university was protected by institutions which might themselves be in conflict but whose interests were identical in wanting the services the universities could provide and in not wishing them to be subservient to institutions other than their own. From time to time, attempts have been made by one group or other to usurp total power and to control the universities. The latter have been seen as powerful allies and have been openly wooed or subtly, if indirectly, controlled. But at least *de jure* if not *de facto*, the privileges enjoyed by the European universities were conferred by monarch or church. In the church-state conflict for power the universities were the source of leadership for both sides. There was competition for power among members of the élites.

Clearly the universities have not always managed to remain free from political commitments and political interference. Whilst recognizing that the power of these institutions has grown through their ability to avoid commitment, it is yet necessary to ask to what degree should university men as such be committed in politics. Dr. Larrea's view is important. He maintains that a distinction should be made between petty politics and those political issues of the greatest generality and of the greatest significance. It is no part of the duty of the universities, Larrea argues, to have anything to do with the former, but it is their responsibility to participate actively in the formulation of policy on major issues. There are, indeed, certain clear advantages in this. Because of their composition it might be possible for representative groups of university men to give what might be regarded as professional opinions. This has to be balanced against the danger of the universities seeming to be committed to policies advocated by political parties, and thus to the parties themselves. These are particularly important issues. For the solution adopted by some university men in times of crisis is to withdraw into their ivory towers. This happened in Germany between the wars, thus leaving the country without the benefit of what might be termed professional advice until it was too late. Then the universities were in no position effectively to resist the purges of individual professors who refused to toe the line. Dictators, as Dr. Mantovani's article shows, are aware of the dangers of allowing uncommitted or hostile professors to continue to teach.

Independence from political interference does not only depend on legislation—as the freedom of the French universities to appoint their staff in spite of the fact that this power is legally invested in the hands of a minister shows. In the final analysis the security of the universities depends on their ability to train people who are in a position to offer desperately needed professional advice. In truth, the ivory-tower scholar enjoys his freedom to pursue knowledge for its own sake by virtue of the fact that many of his colleagues are concerned with the affairs of the world and can advise on them as well as train students whose qualities of leadership have been reinforced by studies which make them competent. Inevitably this raises the question of what studies are appropriate for those who aspire to offer leadership in the modern world. Are they still identical with those that were appropriate fifty years ago? The universities must also guard against the possibility of these studies being pursued in quite separate institutions, control of which by government or political party is more direct. The solution in Europe at least would appear to rest with the universities themselves. One has to recognize that in Western democracies the balance of effective power has shifted. Labour organizations and the electorate have established themselves as effective power institutions. How do the universities stand in relation to these groups? Are trade-union leaders to be trained there? What proportion of the electorate should have access to higher education? Can a modern democracy function efficiently whilst the traditional exclusiveness of the universities is maintained and whilst the emphasis of its studies remains obstinately the same? The whole question of professional education in and for modern society is of fundamental importance. If the universities are to fulfil their role, then their members should seriously examine the concept of professionalism. They must also closely examine the complexities of our society in order to see how they can best perform a service which is still theirs to perform. Social responsibility implies that they should consider the wider needs of society when formulating their policies.

Student Reactions

The students, too, often participate in political activities independently of the university institutions itself. This is particularly true of countries with a totalitarian political structure. Consider, for example, the well-known cases of the Hungarian and Polish revolts of 1957. Such were also the disturbances at Madrid in 1956 and in Buenos Aires a year later. The Göttingen upset in Germany in 1955 is clearly an aftermath of the Nazi era. Only in the recent protest marches in Paris are we dealing with a democratic country. But it may be that the Sorbonne's action took a political form largely because the Government controls and allocates all funds for the universities. In any case, so far the marches have remained within the realm of peaceful demonstrations. There were no riots at the Sorbonne. Thus it may be justifiable to suggest that it is chiefly in totalitarian countries that the fight against unwanted political regimes serves as a primary outlet for pent-up student emotions.

On the other hand, in politically free countries student unrest seldom takes the form of active political demonstrations. It is more apt to take on an economic or social expression. Such expression is also more apt to be turned against the university itself than against the society outside. Thus, in Rangoon in 1953, and in India more recently, student riots were surprisingly slow in revealing their undoubted nationalistic underpinnings and were, instead, emphatic evidence of economic and social grievances. In the United States, despite the profound political implications of the issue, the disturbances at Alabama and also less well-known incidents at Alcorn stressed only the social aspects of the racial tension that caused them. It follows, almost as a matter of course, that the protests of the white students in the first case and of the Negro students in the second case were directed mainly against their universities. In Britain, too, the reception accorded to Mr. Butler at the Glasgow Rectorial installation revealed, if anything, a gamut of social tension but surprisingly few political overtones.

A brief recounting of the facts in the cases mentioned above will enable the reader to judge for himself the validity of the generalizations here presented.

The role the youth and particularly the university students played in the Hungarian Revolt of 1956 is universally known. Early in the history of that revolt there were student gatherings and restlessness at the University of Szeged. On the 22nd and 23rd of October the groundswell burst into waves of demonstrations that rapidly spread across the country. In Budapest, university and high school students massed to adopt a twenty-two-point resolution demanding, in part, the appointment of M. Imre Nagy as head of a democratized government, withdrawal of Soviet troops, the ending of compulsory education in the Russian language, and de-emphasis of Marxism-Leninism in the schools. Four days later M. Nagy, now leader of the new Government, declared successful negotiations with Russia for the withdrawal of troops and began to institute political changes in accord with the demands of workers and students. But barely one week passed before the revolt and its embryonic reforms were crushed under the treads of Russian tanks and the Soviet-controlled Kadar regime came into full power. Many young people were deported to the east, and thousands of others fled across the borders.

The recent Polish history of student riots culminated in the disturbances in Warsaw in October 1957 after the suspension of the student weekly, *Po Prostu*. The suppression of this leading revisionist magazine and the reintroduction of strict Press censorship marked the end of the relaxation of government controls which followed the earlier Lodz and Poznan uprisings. By September 1957, signs of more stringent censorship were clear, and when the first issue of *Po Prostu* for the new academic year appeared it was promptly seized. Official banning occurred on October 2nd, causing the students of the Warsaw Polytechnic to riot in protest the next day. Unsupported by Warsaw

University students—who co-operated with the police against them—the rioters were soon subdued and order was restored.

When evaluating the political importance of such events, it is well to remember that in countries where a communist regime has been only recently introduced, a significant proportion of students come from upper- and middle-class bourgeois and professional families; that is, precisely from those social groups which have suffered heavy losses through the introduction of communism. The violence of the outbursts need cause no surprise. But even in non-communist countries, authoritarian systems may evoke similar reactions. In Latin America, students openly adopt political positions and often participate in demonstrations. In Spain, from the death of Ortega y Gasset to the publication of *The State of Mind of the University Students* by Lain Entralgo, the history of the universities is one of increasing student ferment, which reached its height in February 1956 when, as a result of student remonstrances, the Rector of the University of Madrid permitted free election of delegates to the National Congress of Students whose meeting was to be held in April of that year. After the first- and second-year students of the Law Faculty had failed to elect as delegates any but a fraction of members of the officially sponsored Falangist Syndicate of University Students, the elections were suspended and Falangist troops were stationed on the campus. This led at once to clashes with the students which lasted for two days and spilled over into the city streets. Fire-arms were finally used and the university was closed. Government reprisals that followed included the ban of several literary and art reviews, the deportation of students to the Canary Islands, and dismissal of several officials including the Secretary of the Falange, the Minister of Education, and the Rectors of the Universities of Madrid and Salamanca. The revolt of Spanish students was defeated. Like the Polish and Hungarian cases before it, it is an example of the less successful attempts to bring out in the open the persistent tensions that permeate student bodies in totalitarian regimes.

On the other hand, there is evidence that the defeat of dictatorship is accompanied by the release of many student frustrations. Dr. Mantovani's article describes the atmosphere of political repression over the universities in Argentina that accompanied the establishment of the Perón regime. Attempts were not only made to curtail the academic freedom of faculty members, but under Perón continuous efforts were made to subdue the students by conciliation or repression. It was a period of ferment and of frequent, though always unsuccessful, disturbances, notably at the University of Buenos Aires. But once the dictator fell, the behaviour of the students and their subsequent pacification indicated precisely the nature of the problems of political unrest in universities in totalitarian countries. The day after Perón's departure the student committees of the anti-Perónist University Federation of Buenos Aires occupied the university. Their subsequent activities resulted in a complete remodelling of the structure of that institution. The university accounts were inspected and reorganized. Perónist sympathizers and incompetent teachers among the professors were fired. A candidate for the post of Rector of the University was suggested to the Ministry of Culture and subsequently appointed as '*interventor*'. With these signal initial achievements in hand, the students of the University of Buenos Aires went on to exercise further significant influence. They pressed for an increase in standards of learning. They advocated limited tenures of professorships to eliminate 'part-time' chairs. They demanded complete independence of the university from government direction. They asked for an increase of student prerogatives in university administration. As their demands, long refused by the dictator, were accepted one by one by his democratically minded successors, the tale of student unrest in Argentina disappeared from the newspapers.

Similar strength in the determination of political affairs in a post-totalitarian era was evidenced a few years ago by the German students. In order to gain electoral power the party of Chancellor Adenauer, the Christian Democrats, entered into an alliance with a party of the Right, the Free Democrats. In one of the German states, Lower Saxony, the latter party contained elements of the extreme right with a Nazi background and in sympathy with the neo-Nazi movement. Among these was Leonhard Schluter, a former Nazi, a publisher of pro-Nazi books and a former member of the neo-Nazi party. In 1955, having gained admission to the circle of leadership of the Free Democrats, he was given the post of Minister of Culture in Lower Saxony. This ministry is, of course, in complete charge of education in the state, including the universities. Immediately the rector and the entire senate (some twenty professors) of the University of Göttingen resigned in protest. The students staged a strike. The West German Press and the professional circles attacked the Government for entrusting this crucial post to a neo-Nazi. A wave of student demonstrations swept through other German universities. Under such a barrage Herr Schluter found himself forced to resign his post.

Since the German universities have been severely censured for keeping silent while Hitler and his followers assumed power, the influential show of student strength in Göttingen seems to be particularly significant of the attitude of students towards totalitarianism. Through the fervour of the young, the world of ideas seems continuously capable of revival.

Student unrest is not limited to countries with totalitarian regimes. When political questions are solved by a flexible provision for negotiation and compromise that are characteristic features of democratic government, it finds its outlet, however, in tackling perhaps less immediate, but none the less pressing, socio-economic grievances.

Whilst, in non-self-governing countries, student problems inevitably bear nationalistic and hence political overtones, recent disturbances have been significantly non-political. Thus, at the University College of Ibadan, in Nigeria, student riots in 1957 were pointedly directed against the faculty rather than outside authorities. Resentment against the inadequate provision of university posts for Nigerians, a low estimate of the teaching standards offered, and complaints of a too strict discipline, led to acts of open non-compliance with university regulations. When the authorities called in the Nigerian police to identify the culprits, an open student strike caused the principal to close the college. It is significant for the working out of such tensions in a democratic system that it was forced to open again in January 1958, under pressure of public opinion, without being allowed to punish any of the students concerned.

Somewhat similar in nature were the 1953 riots in the University of Rangoon in Burma. In a country with relatively recent independence and neighbouring on communist China, one might expect the student revolt to be nationalistic and political in character. In fact, the presence of a powerful communist student organization was before the strike and since its occurrence a source of considerable unrest. But although political factors played their part in fomenting difficulties, the latter were said to be largely economic in character and derived from student uncertainties about future employment. When the strike actually broke out it was non-political, and conceived as a protest against attempts by the authorities to curtail the university vacations. This particular wave of demonstrations was broken firmly by the intervention of the Prime Minister and police action. It resulted in the arrest of student leaders, but the Government offered to pay their expenses of court litigation, and the majority of the offending students were re-admitted to the university after questioning and on the receipt of written reassurances about their behaviour from the parents.

Even in non-self-governing countries, then, provided that the machinery for settlement of political grievances exists, student risings are the result of economic or social problems. The same is obviously true in Western countries, where such riots as occur (and they are much less frequent) are singularly devoid of any but social significance.

Contemporary French politics supplies probably enough well-founded provocation. Yet the demonstration at the University of Paris in 1957,

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY
1478
21.6.60

though directed against the Government (i.e. the financial authority), had as its object the airing of economic grievances. In protest marches staged in early 1958 by faculty and students of the University of Paris and of many others, the universities sought to dramatize government failure to provide adequate lecture halls, libraries, science equipment, and dormitories. They threatened a strike if their peaceful remonstrances were ignored.

The hazing given to Chancellor Butler upon his installation as Rector of the University of Glasgow in February 1958 was also, in spite of the political importance of the chief figure, singularly devoid of political significance. Some people qualified to judge, indeed, consider it devoid of any significance. They regard the fact that the Rector's installation address was cut short by a barrage of flour-bags and other objects as due simply to juvenile mischief. More speculative critics are likely to view an eruption of such proportions as another outburst of the 'angry young men'. The expansion in numbers of university students in general, coupled with the continued occupational supremacy of a few highly selective universities, is a potential source of student social tensions in Britain.

Finally, the issue of racial integration in the United States is capable of unleashing innumerable disturbances. Two illustrations show how students of both groups are effected by it. The riots at the University of Alabama received widespread publicity. Admission of one Negro girl student triggered off a series of demonstrations. Crosses were fired in front of the houses of the university officials by groups of students hostile to integration. Cars owned by Negroes were mobbed and damaged. Hostile groups assembled before classes which the student attempted to attend, apparently at the risk of her life and physical safety. While the student legislature condemned these actions, it was powerless to prevent its own members from continuing them. Unable in the end to control the situation, the university authorities first suspended and then expelled the student on a technicality. For the time being at least pro-segregation students at Alabama have scored a victory.

The case of Alcorn Agricultural and Mechanical College in Mississippi illustrates the reactions of Negro students to problems of integration. A Negro professor of this all-Negro college incurred the anger of the students by publishing a series of articles criticizing the National Association for the Advancement of Colored People, the chief champion of Negro civil rights. In a series of meetings the students demanded this professor's resignation, and, when refused, voted to boycott the school. The authorities threatened to bar all offending students from access to higher education in the state of Mississippi, but when these measures proved of no avail, the resignation of the professor in question was the only way to resolve the deadlock. After that the students were allowed to return to the college unpunished.

It is difficult to assess correctly the influence of student activities on the relations between state and university. Some deplore all political intervention by either staff or students, at any level, seeing in such participation a threat to the autonomy of the university. They believe that academic freedom can be claimed only if it is not abused. This may well be true in democratic countries, where political change can be easily brought about through the mechanism of the ballot-box. In totalitarian countries, however, where there is little or no academic freedom, such an argument cannot be advanced. And even in democratic countries it might well be that governments might respect more highly institutions which house student bodies whose supine docility could not always be relied upon absolutely. A study of the character and victims of student wrath often indicates real social maladjustment. Such disturbances might well serve the useful purpose of provoking the authorities to examine more carefully the source of the discontent.

Determinants of University Policy

One way of describing the impact of present day determinants is to suggest that they create special problems for the universities. The war accelerated technological progress, so that western Europe and America are now passing through a new industrial revolution. An important characteristic of this age is the insatiable demand for highly qualified technologists and technicians of all descriptions. This means that more young people of high ability have to be trained as technologists. The question is whether or not there are in the population enough students of sufficiently high ability to meet this increased demand, whilst at the same time making it possible to maintain or raise the numbers of arts students. Should university policy aim at diverting a far greater proportion of able students than at present into scientific study? And if this is possible and feasible, what kind of study would best fit these students for their technical and socio-economic responsibilities? For these university men are not only those who will be in a position to make technological advances but also those best qualified to give professional advice on questions relating, say, to the use of atomic energy or to the wise application of other new inventions.

On the other hand, industrial development has created larger and larger industrial and commercial units. Factories have grown apace, and with this growth the pattern of industrial management has changed. The owner-manager, knowing most of his workers personally, is being replaced by the 'board of directors' and by managerial and executive staff. High productivity in modern industry depends as much on the attitudes of workers and management as on technical and economic considerations. Generally speaking, European countries have been rather slow to recognize the importance of this and have promoted relatively little research into the human problems of industry. The professional aspects of the managerial revolution have been neglected to a much greater degree than in the U.S.A. One should, of course, take into account the attitudes of employers, and there is evidence to suggest that in England at least they are not entirely satisfied with the kind of professional training provided by the universities for engineers. Everywhere in Europe the number of graduates in subjects of immediate relevance to the administration of industry is woefully small.

The war also brought about a change in social attitudes in Europe. Social stratification was not accepted quite as readily as before. Socialist doctrines received wide acclaim. Economic policies which before the war had allowed large numbers of workers to be unemployed were no longer acceptable. Workers in most countries were in short supply. Their bargaining power was thus considerable, and through strength of numbers they were able to reduce and in some cases eliminate the salary differentials between unskilled and skilled workers and between these groups and professional people. Thus the prestige of a professional job tended to be lowered and the economic return on the time invested in study reduced. Certain types of university-trained men could still command very high salaries—scientists and doctors, for instance. This meant, however, that their university colleagues maintained their economic position not because they were in demand but through the solidarity of the university body itself. In England salary differentials between faculty members in terms of their function were resisted. Yet expansion of facilities for the training of needed personnel which was not matched by similar expansion for arts facilities was also strongly resisted. Consequently there has been an extension of the principle that technologists should be trained in institutions other than the universities. Whilst this was usual in continental Europe, it is not part of the English tradition, though there are signs that it is becoming so. The consequences of this are important. Mr. Vaizey has pointed out how different is the control of university policy from that of the training colleges and of colleges of advanced technology. There is a danger that academic freedom will be lost to those institutions and that gradually political control will be increased through an administration which, whilst committed to a belief in academic freedom for universities, is by no means thus committed as far as other institutions of higher learning are concerned.

A third important determinant of policy is the fact of mass education. Support for the idea of universal 'secondary' education mounted during the war, and this raised in acute form the problem of teacher training. Whilst European universities have always concerned themselves with the training of secondary school teachers, should they also take on the task of training all teachers? Universal secondary education presents its own problems. What is to be the content of such an education? What standards of its successful completion are to be set, and by whom? How is it to be organized so that it provides at one and the same time terminal courses for the vast majority of children who will leave at about the age of 14 or 15 and, for a select few, preparatory courses for the universities? The problem has not been fully resolved on a national level in any western European country. It has been avoided by the retention of the old pattern of selective or dual-track secondary school systems. This is true of England even though the 1944 Act proposed to raise the status of all post-primary schooling to that of 'secondary' education and to give parity of esteem to the various types of secondary schools.

Now the universities have expanded everywhere in Europe. But, apart from communist countries, university policy is conservative both as far as extending the range of subjects studied and as regards numbers. The pressure on the universities with an extended secondary school system is great—but not as great as it might be because of the shortage of well-qualified teachers, particularly in science and mathematics. These policies might be justified in terms of academic freedom. Certainly the loss by European countries of their colonies has made their economic welfare increasingly dependent upon the technical, commercial, and social skills of their populations. Can it be said that the European universities have seriously considered the implication of this in the formulation of their post-war policies?

America, on the other hand, faces the reverse problem. The sudden expansion of her international influence have thrown a strain on her personnel resources. Already the universities have responded to the technological needs of engineering, business, and management studies. Universal secondary schooling has been achieved through successive modification to the curriculum to suit the varying abilities of all adolescents. The system of teacher training has been modified so that now the vast majority of teachers are trained in degree-granting institutions. Advanced studies in educational theory and research in the field have multiplied rapidly, so that in quantity at least the material at the disposal of professional educators is as great as that available to the other professions. The expansion of these facilities has led, it is sometimes claimed, to a lowering of the quality of professional training at least for the few who at one time (and in Europe still) would teach only the selected few. It is argued that this has led to the retardation of the 'gifted child' and a consequent loss to society.

One sees in this movement how far the autonomy of the American university and the American professor has been undermined. The climate of opinion is such that both feel obliged (there are exceptions) to meet the demands and requirements of their students. Courses are multiplied in the face of these demands. They also respond to social demand as expressed by interest groups such as 'big business' or labour. The American universities have, however, also responded to direct appeals by Federal Government to develop technological and other studies. This is part of the American tradition. A century ago, resources, in the form of land, were provided to promote higher studies thought essential to the security of the nation. Agriculture and the mechanical arts were first subsidized in this way; later, home economics were similarly promoted by Federal funds, though control was not vested in the Federal Government. European professors are less vulnerable than their American colleagues—they are a scarce commodity and have maintained the exclusiveness of their knowledge with some success. Professor Hullfish and Professor Riesman both reveal how some of the difficulties of maintaining academic freedom in the U.S.A. are the outcome of the process of dilution which has gone on, leaving a heterogeneous mixture of institutions some of which, because of the quality of their faculty members, are well able to protect their freedom, whilst others are not. Professional unity through the old concept of a community of scholars is difficult to maintain.

Communist policy is to create common secondary schools to which all children, regardless of ability, should go. But whilst the emphasis of the curriculum has changed, methods of teaching have not. They remain European. The incentives to succeed at school, however, have been strengthened. Entrance to institutions of higher learning is dependent upon success in state-administered examinations. Success at the university leads to well-paid posts, and salaries are so arranged as to attract the most able students to courses which are regarded by government authorities as socially necessary. Technologists, therefore, are very well paid, the differentials between their salaries and those of unskilled workers being far greater than in western Europe and, particularly, than in England. Institutions of higher learning have been established to provide training for the professional leaders in every walk of life. The concept of education for industrial productivity and with the aim of establishing a socialist society gives direction to the evolution of higher studies. Mr. Lukatela's article points to the difficulties of implementing such a policy in Yugoslavia. The traditions of the universities are strong, and it is apparent that even with firm central direction, it is difficult to change their outlook and orientation. Finally, as we have already pointed out, modern governments are dependent upon the universities for their leaders and administrators. To destroy the universities, or to hamper them in their work, would be to diminish one source of the government's own strength.

The task of the universities, it might be argued, remains as it always was—the training of future leaders of society: if this be so, the concept of leadership should be examined. These are inherent in qualities of personality which are hard to define and perhaps even harder to develop through education. Nevertheless, this has been one important part of the function of the universities, and nowhere more explicitly than at Oxford and Cambridge and, hence by imitation, at the other English universities. What courses, what subjects, what methods of teaching are appropriate in the education of modern leaders? For Plato the guardians were those who could acquire knowledge, and the philosopher was the person who had achieved this end. And, Plato held, in any society there were few men who could be philosophers and who were, after renouncing the right to family life and property, fitted to exercise leadership. In practice the choice of leaders has usually been made by applying the criteria of birth—family or race—and of money. These are increasingly rejected as being both inadequate and unjust. Instead, one seeks to discover a natural aristocracy of talent, and it is said that equal opportunity should be provided for all children, so that those with the necessary ability may rise to the top. Karl Mannheim's theory of leadership assumed something of this. Education was the foundation on which leadership was built, and it was the selective process through which leaders were found.

In considering the question of leadership, the problem of élitism inevitably arises. How do the universities contribute to the formation of élites and to the permanence of an élite through inheritance? Social philosophers, fearing hereditary élites which degenerate, have constantly advocated a rotation of élites or a constant renewal of them. New life should be brought into them. Now, university policy is bound to affect the character of the leadership group and élitism. Expanded opportunities to enter universities have meant that, on the whole, the most able students are able to proceed to the university. But if the social élite group remains small, many university students may be disappointed. This is seen most clearly in countries like India, where the rapid expansion of university facilities has not been matched by an equal expansion of the number of posts within the leadership or élite group. But disaffected university graduates are found not only in India. The arts graduate unable to obtain a prestige job in an academic high school (grammar school), and finding that his salary is no higher than that of a skilled labourer, may also become disaffected.

The character of the élite has changed in important respects. The scientists, as far as salary is concerned, form the group with highest prestige. This group is bound to expand, that is to say, a different educational background is tending to determine the composition of the new élites. This process has been carried to further extremes in the U.S.A. and U.S.S.R. than in most countries. But the emergence of functional élites is apparent everywhere, though the process is somewhat different from the one envisaged by Jefferson and Condorcet. Functional élites may or may not be made up of men with the greatest natural talent. A university system like the one found in England, which diverts a very considerable proportion of the country's most able students to Oxford or Cambridge, where even now the traditional prestige subjects attract a large proportion of students, may create an élite which tends to exercise political power of a kind quite distinct from modern functionalism. Such a process would be exaggerated if students who were to become members of the functional élites were to be educated in separate institutions. But this might not in itself have serious consequences unless power remained firmly in the hands of the traditional group. An illustration of this is found in the evidence which shows how managerial positions on the policy side in England tend to be occupied by arts men. The scientists occupy technical managerial positions and in the higher echelons their salaries tend to be less. Personal qualities aside, what are the technical educational prerequisites of managerial personnel?

A further question on élitism has wider implications. What proportion of a modern society should proceed to higher studies? That is to say, to what extent should the universities be expanded—if at all? The percentage of university students in Europe remains extremely low—and nowhere lower than in England. How can the optimum percentage be judged? And who should decide? The position is complicated by the existence of a number of conflicting psychological theories. Is a greater proportion of England's population than is at present in the universities capable of benefiting from present university courses? And if this percentage cannot be raised without impairing the quality of study, are the universities justified in refusing to admit more students than at present?

The Response of the Universities

It might perhaps be argued that a measure of the social responsibility of any group of universities would be the degree to which they were prepared to study the questions of professionalism and leadership in modern society and respond to the demand for more specific professional studies and for an extension of the group from which national leaders can be drawn. How far have universities been willing and able to modify themselves? And, on the other hand, how far is it possible for them to do so without loss of academic freedom and without surrendering the original conceptions of their function and authority? Response to social and individual demand does not, it seems, run contrary to university tradition. The reactions of universities have varied. In the nineteenth century most European universities felt reluctant to undertake the training of high-grade technologists, and were strong enough to resist any attempt to broaden the scope of a university education by the inclusion of engineering faculties. Thus separate institutions for the study of technological studies grew up outside the university, and although in the German-speaking lands particularly they quickly became important they never acquired quite the prestige of the universities and did not provide members for posts of the highest civic responsibility in the way the universities did. Even in France the *Grandes Écoles,* designed to prepare highly qualified personnel for the armed and civil services—universities of applied science, as it were—were soon modified so that, whilst the prestige of their graduates was extremely high, they had in fact come to resemble the universities much more than the technical universities of the German lands did. England was fortunate in that Oxford and Cambridge had, since their creation, maintained a monopoly, and no new universities had been established as they had in continental Europe until the nineteenth century. The civic universities of England therefore grew out of the special institutions which were set up to meet the economic demand for technologists. Gradually they acquired full university status.

Thus whilst the universities of Europe had responded to many of the social demands pressed upon them from time to time they did not, generally speaking, respond to the demand for technically trained personnel created by the Industrial Revolution. The consequences of this have been serious. Perhaps the most significant is the fact that political leadership has, by and large, passed scientifically trained men by—whether or not through their own lack of inclination is, of course, an open question. The fact remains that classical scholars and lawyers have retained a virtual monopoly on those positions in politics and administration which university men have filled. The fact that these studies drew to themselves the ambitious and the able, and qualifications in them made it possible for holders to satisfy their ambitions, also brought in large numbers of other, perhaps less able, students. These, unable to obtain the important official or semi-official posts, found work in industry and commerce on the management side. It is often argued that these studies are, in fact, the best suited for these occupations; the proliferation of professional studies being regarded, as in the case of technical subjects, as outside the function of a university. Nobody denies that technologists require special training—these studies found their place outside the universities. But the argument for excluding professional studies, other than the traditional ones, is based upon two main points. First, that such practitioners do not really need a special course of training, and secondly that particular studies like accountancy, business management, and the like are not suitable as university disciplines. The first argument is very much open to debate. We should note the fact that modern conditions have increased the number of persons required for these occupations. Whilst it is possible for a small number of a few carefully chosen people to tackle any problem on the basis of their training in law or in the classics, this ability to transfer their training does not necessarily apply to everyone able to pass the examinations necessary to acquire a law or classics degree. We need hardly add that this point will or will not be taken up according to the psychological theories accepted.

A special aspect of this problem is concerned with the training of teachers. Industrialization created a demand for more and more persons with the ability to read and write. Social awareness on the part of some of those in authority in Europe warned them against providing the masses with too much education. Thus a policy was devised of providing just enough schooling for the masses to enable commerce and industry to flourish. No doubt in this the nineteenth-century makers of educational policy were mistaken. Nevertheless, the limitations of elementary schooling placed few demands on the universities. The latter were prepared to accept, on their own terms, responsibility for the training of secondary school teachers and their principal function between 1900 and the Second World War can be seen as that of educating more and more teachers for the growing number of selective secondary schools. The extension of this type of education was, however, limited; less than 15 per cent of the teen-age population went to secondary schools, and only a minute proportion, say, 2 or 3 per cent of their age-group, went to the universities in England. The percentage of university students in Continental universities tended to be greater, but the percentage of children in the academic high schools tended to be lower than in England.

Yet it was admitted that teachers should be trained. As in the case of technologists, they were relegated to separate institutions. This divorce has had far-reaching consequences. Professional training in education is at least as complex as for any other profession. First, the esoteric knowledge which lies behind any professional organization has to be acquired. Knowledge of the law is required of lawyers, knowledge of theological texts is required of the intending priest, knowledge of the principles of anatomy, of the behaviour of drugs, and to an ever-increasing extent of physiology, physics, chemistry, and biology, is needed by the physician. In addition, the techniques of applying the knowledge they have acquired are necessary and have to be learned during a course of professional training. Indeed, medicine—which draws so heavily to-day on the data provided by other sciences—most closely represents the position of the teaching profession. Within the universities the profession of medicine has been allowed to grow—that of education has been checked. Training colleges in Europe have hardly filled the gap left by the refusal of European universities to take seriously the problem of the professional training of teachers. On the one hand they have concentrated on providing for their students the information regarded as most suitable for school children. In England, on the other hand, in some ways for good reasons, emphasis has been laid on the application of teaching principles, that is on specifically professional studies. Until recently this substitute for university education did little harm, but post-World War II conditions show up the defects in both systems. Whilst English teaching methods might be regarded as better adapted to twentieth-century social and psychological conditions, the content of education often fails completely to meet either the social needs of the day or the individual demands of parents and pupils. In Europe, on the other hand, there is a danger that outmoded methods of teaching may accentuate the difficulties experienced by children faced as never before with a complex social environment in which they are constantly being asked to make serious and important decisions. The changing structure of society, the processes within industry, the character of the family have created an environment which is no longer simple. It is important to recognize that the skills which have been learned in the sheltered environment of the school may no longer be adequate in the outside world. This situation demands of teachers a corpus of esoteric knowledge which cannot be provided in the training colleges as they exist to-day either in England or elsewhere in Europe. Everywhere the content tends to be determined by the strangle-hold maintained by the universities which train secondary school teachers, and the content of university studies has changed but little. The majority of teachers have studied, on the arts side, history, modern languages, the classics, and the language and literature of their native tongue. Even where facilities exist, few have benefited from courses in economics, political theory, psychology, and sociology, all of which—even without re-arrangement for the purposes of education—seem essential for modern teachers.

University Expansion—the Power to withstand Change

A further problem is, of course, to judge social demand both qualitatively and quantitatively. There thus arise questions of the expansion of university facilities. How wide should the doors be opened? What proportion of the nation's population should be allowed to enter? In many countries whose evolution for a variety of reasons has been rather slower than in western Europe, recent policy has been to extend dramatically the opportunities for university study. Thus, in India since independence, the number of students has risen from 160,000 to 800,000. Such an influx of students is bound to give rise to problems of organization and teaching. A corps of competent teachers has to be built up, buildings and equipment have to be increased. The system of assessing the competence of students may have to be revised. Expansion, in short, affects every aspect of university organization. The implication which troubles many people concerned with university policy is that of 'standards'. This issue turns on two points. The first is theoretical and psychological. It amounts to this—what proportion of a nation's population is innately capable of reaching standards of attainment which have been laid down, no doubt in a rough and ready way, by those operating the system? Two answers are possible. According to the first, only a certain small percentage of the nation's population is capable of doing this: this view is in line with the Platonic theory of ability and of its inherited quality. The other answer would be that everybody is innately capable of reaching the accepted standards provided that the environmental conditions, including their educational opportunities, have been of the appropriate kind. In support of each of these contradictory hypotheses, evidence can be adduced. Conclusive evidence is lacking, partly because no country has yet been able to provide uniformly appropriate educational and social conditions for all its people. Thus, whether as the result of inherited equipment or as a consequence of environmental conditioning, some people perform better than others in the tests traditionally regarded as suitable for selecting students for the universities. The issue is rarely resolved in the light of established data, although some studies suggest that a greater proportion of a nation's population than was once thought possible is able to achieve results comparable to those achieved by a previously carefully and highly selected group. Nevertheless, policy depends more on political theory than it does on scientific evidence. Communists do not believe that ability is innate, nor do they believe that it is restricted to a small proportion of the population. Thus university policy in communist countries tends towards a policy of rapid expansion. One could argue, however, that such policies are, or have been, forced upon nations as the result of economic conditions because any endeavour to raise the level of a country's economy depends upon the expansion of higher learning facilities. Evidently ideology and economic circumstances unite in communist countries to make a expansion acceptable. Where communism is not the prevailing ideology it is yet possible to discern forces at work which encourage the quantitative expansion of universities and institutions of higher learning. The controls which can be placed on this kind of expansion are of interest.

Uncontrolled expansion might also be examined in the light of the areas in which the greatest growth of facilities might be expected to occur. For a variety of reasons, consumer demand for university education, of any type, is likely to-day to be large and to increase. It confers upon its recipients social status, and provides in many instances job opportunities previously denied to those without a university education. This picture will change as the impact of industrialization upon the occupational pattern is felt. Aspirations to become members of the prestige professions can be satisfied only through attendance at a university in many countries, and almost everywhere the connexion between the professional bodies or corporations and the universities has been and continues to be close. Thus, occupational ambitions have been closely bound up with university work. Are modern universities prepared to meet consumer demand in a technological age? Are they prepared not only to extend themselves to accept more and more students, but are they also prepared to extend the range of their studies to include new professional subjects? On what grounds can autonomous universities refuse to meet this kind of consumer demand? If their financial resources are such that they can survive without responding, then there seems no reason why, if they are concerned solely with their own interest, they should not refuse to accept new subjects in their list. They might also argue that certain subjects do not lend themselves to the kind of study for which they were and are designed. A case of this kind has been made, for example, among others by Sir Eric James in *The Content of Education*. The argument in its turn is based on certain suppositions about the nature of knowledge and the areas of human activity in which knowledge is possible and can be acquired. Discussion thus becomes philosophical and metaphysical, and those whose outlook is neither empirical nor pragmatic can argue that only through certain kinds of activity—in some cases this is restricted to the mental experiences of intuition and logical argument—can knowledge be acquired. Consequently some subjects which by their nature, so the argument runs, do not provide these kinds of activity are inappropriate in the university. Associated with this theory is another, which accepts the point that the universities have a responsibility towards their students, namely that of improving them or at least of improving their minds, and that this improvement in wisdom comes about as a result of mental training in the appropriate academic disciplines. This kind of view clearly ignores proper consideration of the sociological aspects of knowledge. It implies beliefs about the absolute nature of knowledge, and about the tests by which 'true' knowledge can be distinguished from 'false'. Such an epistemology can be contrasted with pragmatic theories which assume that tests of knowledge are found in practice—verifiability is related to sense experience and impressions. Both epistemologies are of course intellectual, both can be debated at the highest level. The educational implications which follow from such divergent faiths are also very different. Frequently each school of thought criticizes most strongly the practical implications rather than the theoretical pre-suppositions of the other. Certainly within the normative pattern associated with universities one finds conflicting views on the nature of knowledge. But where the more pragmatic outlook has become dominant a different attitude towards university studies can be discerned. The connexion, it should be emphasized, is neither direct nor casual, for clearly the universities themselves have played some part in making the pragmatic view of knowledge acceptable, yet practice and attitude co-exist. Criticisms of American higher education are often directed against practice and fail to consider the general climate of opinion among university men.

A third argument against change rests on the view of some university men that they know what is good for the nation and that herein (they might maintain) lies their social responsibility. On what grounds can such a view be defended? Often historical evidence is adduced: it can be shown that many national achievements have been due to the activities of faculty members. But here again those who resist change frequently take a view of the universities which lacks sociological insight. The significant thing about twentieth-century society—at least in advanced countries—is that it is a mass-orientated culture. The agencies of communication have improved so rapidly in their ability to reach everyone that there is now mass participation in the cultural activities of a nation's life. Associated with this expansion of cultural activity has been an extension of mass-political action. The significance of these changes must be judged in the light of the contribution the universities once made to cultural and industrial development and the kind of way in which they now make a contribution to social progress. Invention, aesthetic productions, and political policies were until recently the work of a few people and were enjoyed by a restricted group, which included the producers themselves. Now the patterns of production and consumption have both changed. Progress in technology depends to-day as much on the high-level routine work of countless technologists and technicians as on the creativity of a few able and highly educated men. This is an age in which a primary task is to make available to the masses the privileges—political, aesthetic, economic, and social—previously available to the few. At the technical level this directs attention to the problems of applying in practical endeavours of production the fundamental theoretical principles of science. But the problems of productivity and consumption, as we have suggested, have important educational facets.

The issue has a dual character: there is a demand for creators of a technological kind who can apply theoretical principles to the processes of mass production. There is also a demand for mass discrimination and appreciation. And this at all levels—in commerce, in aesthetics, in political judgement, in moral action. The consumers need, in short, to be educated in discriminating between values and the various goods and services which are now competing for their custom.

Whether or not the universities can adapt themselves to such changes is important. Clearly in some countries adjustment has been far from easy. Studies which are fundamental—according to this analysis—to the successful prosecution of the processes which are now going on are frequently regarded by universities as falling outside the scope of their rightful interests. If, as might be assumed, the most able men and women still choose to go to the universities, the result would be that those who might be expected to exercise leadership would have received no formal professional training in how to deal with the problems they are likely to meet as leaders. Again the question of conflicting theories arises. Those who would restrict university offerings might argue that a well-trained mind can turn its attention to most of the problems that beset society and find adequate answers. Tradition has shown that such men could be trained successfully in universities through a limited number of subjects which existed or had been created before the nineteenth century.

But is the ability of a few carefully selected men to turn their attention to all the major social problems an index of their personal ability, or does it come from the fact that their intelligence was trained through education of a certain type? Policy-making in a previous age was the province of very few men. Perhaps the ability they possessed was due more to innate intellectual capacity than to specific training. Their success was possibly due also to some extent to the kind of problem that occupied their attention. They were, as suggested, those of a closed society, in that the creators or initiators of policy, and the executors of it, were the same people drawn from a restricted group. To-day no policy in any country that has any pretensions at being a democracy can be carried through without the approval of the majority of its people. The masses can, as Lippmann has pointed out, exercise a veto even if they are unable to present realistic and alternative policies. Sociologically the position in which a few educated men could run the affairs of the country has changed, and in addition the knowledge they need to exercise their role as leaders is of a different kind. Not only do they require more than a passing knowledge of modern science, but their sociological, psychological, and economic information needs to be more than that passed on by the informed layman or amateur. The complexities of life and of the institutions which combine to constitute a society make professional studies imperative, and these at all levels of participation—for those who initiate policy and for those who are called upon to appreciate and pass judgement on it.

Under-developed Countries

The problems facing universities in economically under-developed countries are somewhat similar. In these countries, too, anxious as their leaders are to raise the standard of living of the people through economic development, there is an insatiable demand for technically trained personnel—doctors, lawyers, dentists, nurses, foreman, and so on. But there is usually an acute shortage of facilities and resources. On the other hand there is a feeling, perhaps justified, that a developing nation needs far more university-trained men of all kinds. The arts faculties can be most easily expanded and they have been. But arts graduates have to find occupations which are suited to their abilities and training, and also of a kind which *they* think their training qualifies them for. Frequently the second condition cannot be satisfied—not all of them can get government posts.

In view of this, the question of financing and controlling universities under such conditions of development arises in an acute form. Who encourages the Indian universities to accept more and more arts students? Who provides the money so that facilities of some sort for training them can be provided? In these countries particularly one finds a remarkable clash of problems. No doubt as a result of British Government policy the Indian universities were never autonomous communities of scholars. They were controlled by administrators and the influence of government was powerful and direct, though this is not to say that professorial opinion played no part. Political agitation also strongly influenced the pattern of development. Under such conditions it was hardly possible for the universities to establish their autonomy. As degree-granting, examination-organizing bodies they could attempt to maintain standards, but their influence on the teaching quality of the many affiliated colleges was slight. It was therefore difficult to resist consumer demand, and yet apparently some of the consequences of responding to it are likely to be serious for India. Government policy has perhaps encouraged this response. One of its basic tenets is that the country should be democratic, and this meant that selective investment to develop higher learning—of a kind which could make a direct contribution to technical and economic development—was made difficult.

In addition, the Indian Government is committed to a policy of universal primary education which will increase the pressure on the universities. The climate of opinion remains one which gives to technical studies rather low status. For these reasons, consumer demand operates in many ways against the national interest.

An interesting contrast to all this is found in the policy pursued in communist China. This country has adopted a characteristic policy of developing special institutions side by side with the universities but giving to the former special emphasis and attention.

Patterns of Development

For purposes of analysis three main types of university pattern can be distinguished—on the extreme there are the continental-European (and in this include U.S.S.R.) institutions, in sharp contrast with American institutions of higher learning. In important respects the British universities occupy a somewhat intermediate position. We should look at these three patterns as significant prototypes. To distinguish them we should try to see how their normative, institutional, and contextual patterns differ.

It would be a mistake to assume that the policies and institutions are completely opposed to one another. The clash of ideology is apparent at certain levels, and the philosophic climate of opinion in America shows fundamental differences from Russian Marxism. Yet in both these countries the on-going technological revolution has been fully accepted and education is seen as serving an important economic purpose. Theoreticians in both camps advance as their aim of education the all-round maturation and development of individual children, but nevertheless in their own ways American and Russian educators tend to emphasize, in a manner less common in Western Europe, the fact that education can and should contribute to society's progress. Opinion, whether at the official level or in terms of popular belief, is orientated to an acceptance in educational institutions of subjects which have a direct bearing on industrial production. The characteristic faith of the Europeans in knowledge for its own sake has been shaken both by pragmatism and by Marxism.

Within this general climate of opinion the institutional developments in university education can be assessed. In the first place, national survival in the nineteenth century depended, as Americans saw it, on the adequate development of the agricultural and mechanic arts. In a country where private educational enterprise flourished, public money was put into land-grant colleges for the specific purpose of developing technological studies. This capital investment drew to it other moneys and these institutions of the Mid-West and beyond attracted students in large numbers. There was a demand for instruction not only in technological subjects but also in the arts and education. Since these institutions were able to attract money and students they began in time to dominate the American university pattern in spite of the prestige and continuing influence of the older private institutions. The case argued here is that these state institutions came to set the pace in American university development. Within their faculties—and, indeed, as their *raison d'être*—technological studies were included. As the demand changed it was relatively easy for business education, commerce studies, and other professional studies to be accepted in the curricula of colleges and universities. With a few notable exceptions—like Massachusetts and California Institutes of Technology—the technological, commercial, and professional courses figure within the ordinary university structure. Certainly a number of special institutes are found within the older universities, such as that of Human Relations at Yale, but the Institute for Advanced Study at Princeton is unique. In addition, of course, there are a large number of technological institutes, many of them founded towards the end of the nineteenth century, although some of them were originally land-grant colleges. Large numbers enrol in them, but far fewer than in the main stream of universities and liberal-arts colleges.

At the other extreme there is the pattern of higher education found particularly in countries where German influence has been strong. The significant characteristic here is that technological studies did not develop within the university faculties themselves. They were pursued in separate institutions—technological universities. The graduates of these were unable to carry the full title of university professor, and indeed they were not regarded as institutions of the same prestige as the older general universities. Wherever the climate of opinion continued to emphasize the importance of knowledge for its own sake, the dichotomy established by Aristotle between liberal and professional studies was accepted as justifying a belief that the universities were the only true centres of higher learning. But, as social demand grew in Germany for graduates in technology, more and more students and money were attracted to the technical universities, so that to-day many of them enrol as many as four thousand students. For prestige reasons the popularity of the older universities persists, and even larger numbers of students attend them. But the consequences of such a divorce may be serious for society. Academic prestige tends no longer to be associated with financial returns in terms of well-paid positions, and yet administrative power continues to rest largely in the hands of university men, and thus one finds a clear stratification of society on the basis of educational qualifications and attainments. In an era which has been termed ' the technological age ', the full consequences of dissuading or preventing those best qualified to judge the implications of technological advances from exercising some measure of administrative control are alarming. In this institutional method of selecting administrators there might be judged to be a social lag. Of course, it might be argued that persons who are technologically or scientifically qualified are not well prepared for management. This is debatable. But a selective system which virtually bars these men from administrative posts at the national-policy level seems dangerous. The probable educational consequences of the widespread introduction of technological studies have, of course, been stressed at every stage of development by the traditional arts graduate. The task of resolving this problem of somehow making it possible for university men and technologists to find a core of agreed studies is certainly not made easier by the institutional separation of technological universities from the others which maintain the tradition that ' knowledge for its own sake ' should be the cardinal principle of organization of study and research.

The position in the U.S.S.R. is different: here technological studies now enjoy very high prestige. The Academy of Sciences of the U.S.S.R., although founded early in the eighteenth century, has been built up under communist policy to a position of the highest esteem. It consists of a number of committees, but in addition there are associated with it over one hundred institutes, research stations and laboratories. Its members are the most distinguished professional men in the land. Their authority is enormous. The pattern of special institutes within the Academy is supplemented by regional academies and a large number of higher educational institutions and research establishments dealing with all aspects of Russian agricultural, industrial, and public life. In its organization, then, higher education in Russia is designed to promote communist economic and social policies. The universities of which Moscow is by far the largest, followed by Leningrad and Kiev with less than half the number of students, follow in many ways the pattern of western European institutions. Their faculties tend to be more practical in character, however, emphasizing the natural and social sciences rather than classical languages. In number there are far fewer universities throughout the U.S.S.R. than in the U.S.A., but the development of the special institutions enrolling students for special professional studies is impressive.

Administration of Universities

It might be argued that the universities in the U.S.A. respond to consumer demand more readily than any in the world. An explanation of this might be found in the relationships the universities have with the state authorities, in the general climate of opinion amongst those wishing to receive university training, and as one outcome of the social role university teachers in the U.S.A. see themselves as playing. State legislatures can and in fact do lay down who shall be admitted to state universities. This means that one important aspect of what has been regarded as academic freedom has been removed from many American university administrators and teachers. No doubt legislation returns some of the power to them when and where it rules that, whilst any high school graduate must be accepted by a state college, the latter is not obliged to retain any students after the end of the freshman year. Consequently the fall-out of students at the end of the first year is considerable, and the total percentage of those entering college who graduate is only in the region of 30. Whatever grumbles might be heard from college professors at this state of affairs, they nevertheless accept the principle that such legislation should determine their policy. They protect their interests as best they can, but inevitably enrolments have gone up by leaps and bounds, and some would say that the quality of work has suffered in the undergraduate schools. Certainly, heavy enrolments have forced on college authorities devices for testing students which are quite unacceptable in Europe, although even there, particularly in England, examination procedures have been modified through pressure of numbers.

Consumer demand in the U.S.A. is reflected in the wholesale transfer of students from general arts studies to professional courses. Dr. Seymour Harris has shown in a previous issue of the YEAR BOOK how first degrees in education, business education, and commerce have risen not only in total numbers but percentage wise of the whole graduating population. The system through which it operates has led to a diversification of studies which to Europeans seems fantastic, but this diversification itself is symptomatic of the general acceptance by the American people of the position that manual work may not be degraded. Thus universities have not successfully resisted a radical movement away from studies which have been regarded in Europe as appropriate to the high tradition. Nor have they been able to resist a lowering of quality, at least judged by European criteria. But this is in part because university men themselves have accepted—perhaps with more reservations than their consumers—new criteria of quality and new instruments of assessing it. Secondly, the excessive consumer demand has far outstripped the ability of universities to provide a sufficient number of teachers capable of maintaining previously accepted standards of quality. This expansion has also involved a loosening of the bonds uniting the professional group. Mass education everywhere has imposed strains on the traditional professional units of university and secondary school teachers. In many continental countries these bonds remain, so that school teachers frequently spend some time teaching in the university. In England the academic grammar school teachers have for many years been separated from their university colleagues, at least in function. Since the 1944 Act they have increasingly become associated with school teachers generally, the majority of whom have never really in England, nor on the continent, enjoyed full professional status. In the U.S.A. this process went further, assisted by other changes, notably the one whereby teacher training institutions became degree-granting colleges and then later full universities providing post-graduate work. But whilst this movement may eventually lead to greater professional strength among educationists, such as teachers, school superintendents, professors of education, it has tended to break down the professional solidarity of the universities themselves. Sectional professional groups can maintain their autonomy, as lawyers and medical men amply demonstrate, but the liberal-arts men have lost much of their professional power when compared with their European counterparts. The mutual front which the professional groups of Europe can put up has to a large degree crumbled in the U.S.A. Certain issues might draw them together, but it is significant that where serious attacks have been made on academic freedom the defence by the universities has not been that of a united professional group.

A third reason for this weakness is the system of administration and control in the U.S.A. The universities are controlled by the public at the local or state level rather than at the Federal level. The interest and power groups within any state will be very diverse, so that the form which control takes will vary with the kind of balance of power that exists in a particular state. Nevertheless there is a large measure of agreement between the legislation of the states on colleges and universities, a notable requirement in many being some form of 'loyalty oath'.

One important factor which operates in the U.S.A. is a negative one, namely relative lack of a fully developed permanent civil service, either at the local or at the Federal level. Whilst continuity of executive action is not an inevitable feature of Western democracies, it is an important element in the operation of government. The administration —career-men—temper political decisions by their professional judgement, which is not readily swayed. The American principle of hire-and-fire applies equally to administrators and teachers. Indeed, the former are often more vulnerable than the latter. Whilst it is true that most school superintendents and university presidents are university trained, their power does not depend on their association either with university or with professional men, but on other factors. The checks-and-balance theory of university administration is examined in this Year Book by Dr. Freeman Butts.

In Europe, on the contrary, the university-trained administrator is in a position both to carry out policy and to maintain continuity despite political changes. As Mr. Vaizey shows, professional administrators at government and university levels have acted with a greater sense of social responsibility than they are often credited with. Often their policies have won the day in the face of animosity and opposition. Yet at the same time membership of the British University Grants Committee and, indeed, the whole government administration at the highest levels is restricted to university-trained men who have imbibed the traditions of the older universities and are therefore sympathetic to appeals couched in terms of the fundamental ideas or principles of the university. They act as a buffer between political interference and completely irresponsible academic autonomy. If they act, as in the case of universities, at the national level, then clearly greater homogeneity between these institutions is likely to be found. For similar reasons fewer rapid changes are likely in the actual content of university studies, in the methods of teaching, and in accepted standards of quality. Thus, in spite of the over-all change of emphasis in communist countries towards studies which are held to have immediate, direct, and important social value, the teaching methods and assessments of quality have perhaps changed rather less than might be expected even there. The European tradition has been retained in its fundamental aspects.

The consequences of moving away from this tradition through the response by American institutions of higher learning to consumer demand have been criticized severely by Dr. Hutchins, Professor Bestor, and others. Perhaps because they have been more sensitive to public opinion than their European counterparts, the American universities have been rather vulnerable to attacks on their academic freedom. But it could be argued that in their emphasis on professional studies, their acceptance of some 30 per cent of the population of college age, their interest in the practical problems of man in his social and national environments, the American institutions are more effectively fulfilling their social responsibility than are the European universities. It could also be argued that their policies have helped to remove some of the worst features of European social-class consciousness and to eliminate the intellectual snobbishness of the European which is at once his weakness and his strength. It could be argued that in responding to the demand to train teachers the American universities have made a signal contribution towards raising educational standards throughout the country. Educational research has been promoted and the status of the teacher of the masses has been raised. There are signs of an emerging profession of educators which is in a position to operate in some ways, though not in all, as do the older professions. Progress is being made towards the development of a corpus of educational theory on which policy can be based. At the moment it would be foolish to suggest that this knowledge—drawn from psychology, sociology, economics, anthropology, and other social sciences—can match in effectiveness that possessed, for example, by doctors. But in a world in which education is seen—rightly or wrongly—as the key to unlock the doors of human progress, no knowledge is more necessary to the fulfilment of man's desires for peace, prosperity, and freedom.

GEORGE Z. F. BEREDAY.
BRIAN HOLMES.
JOSEPH A. LAUWERYS.

SECTION I

ADAPTATION OF UNIVERSITY TRADITIONS

Any institution with a centuries-long history is bound to have built into it a number of traditions. Some of them might appear perfectly consistent with the original aims and purposes of the institution. Others might have introduced radically new elements into this general ideological pattern. The Medieval University has been no exception. Only in retrospect perhaps is it possible to delineate its main features. To say that it grew as it did as the result of a specific theory would be to credit its early masters not only with a very unlikely singleness of purpose but also with the power to achieve it. Circumstances as much as anything determined what was possible. But since a tradition has been established it is possible to study the ways in which changes in it have been wrought.

We have not thought it necessary here to present detailed studies of the historical traditions associated with the European universities. These have been fully documented in standard works like Rashdall's *Universities of Europe in the Middle Ages*. Nor are the articles presented in this section the only ones which bear upon the traditions behind the universities. We present here rather a number of case-studies which illustrate certain important aspects in the evolution of institutions of higher learning in various parts of the world.

We start with Europe, where one of the most cherished normative laws within academic circles has been that 'knowledge for its own sake' should motivate university teachers. A second has been that the kind of knowledge thought worthy of the attention of these men was restricted. Their concern was not with applied knowledge—'know-how'—but with the essence or reality of things.

The determinants of change in this outlook are no doubt many, but invention and industrialization have been among the most important. The pressure to modify themselves has been withstood more or less successfully by universities throughout Europe, and detailed studies might reveal the significant and detailed differences between, say, the German universities, the English and the French. We have not felt it necessary to provide such analyses but have instead concentrated upon some significant aspects of change. We start with Europe, where perhaps the innovation which has created the most problems for universities and has had the greatest implications was the introduction of studies which by tradition were regarded as not quite in keeping with the true functions of a university.

In the first article, Professor Meister traces the rise of the medieval universities in Germany and Austria, and illustrates the fluctuating influence of the state on the autonomy of universities, and the bearing which this has had on the establishment and constitution of the later institutions. Professor Meister refers again to the medieval theme by raising the problem of 'general' education—a problem which he admits has not been solved in Austria—and a problem which is central to any consideration of the content of teaching in both universities and non-university institutions of comparable status.

Dr. Hans points to the eighteenth-century origins and development in higher technical education in Europe. His analysis is based on the pre-eminent position of Theology in the early schools of higher learning. The impulse behind the development of technical studies came from "enlightened kings or princes". The fact that they were often financed from State funds meant that the autonomy of the technical institutions was not complete. But, on the other hand, universities dominated by a Church can hardly be regarded as fully autonomous. We should distinguish here between legal restrictions on the freedom of men to teach what they wish and those proscriptions which, if indirect, are none the less effective. Dr. Hans shows how a different political climate of opinion in England helped to determine a pattern of development which ran contrary to that in continental Europe. There, France, Germany, Spain, and Russia pioneered the establishment of separate institutions, frequently sponsored by the State, for the study of technical subjects. The later, nineteenth-century developments in England are of particular interest since they created a tradition in which the new technological faculties found a place, side by side with the historic ones, in the universities themselves.

Professor Armytage points to the medical needs of the time which gave rise to an Act of Parliament authorizing the Society of Apothecaries to award its own licentiate. Associated with this movement was one George Birkbeck, whose name is perpetuated in Birkbeck College, of the University of London. It was this university which broke many of the traditions established and maintained by Oxford and Cambridge in close association with Church and State. First there was the break with sectarian influence. Next there was an attempt to introduce more practical studies to students drawn from more diverse social origins. Moreover, London admitted women as students long before either Oxford or Cambridge. Finally, the university "developed into a vast examining machine". Many provincial institutions were encouraged to follow these important leads.

If one effect of the University of London was to extend the range of university subjects, the examination system tended to make the courses more and more specialized. The day was to come when students preparing for an honours degree in physics were required to study aspects of that subject for three years and pure mathematics as a subsidiary subject for one or two years. At least as far as formal requirements were concerned, the broad, liberal aspect of an undergraduate education which might be gained through the study of several subjects *per se* was in danger of being lost. Even to-day, undergraduate studies in English universities are far more specialized than in most European countries. The experiment at North Staffordshire about which Professor Vick writes is therefore again a break with tradition. In this article some of the problems of moving away from the traditional organization of undergraduate studies are examined. Could this pattern serve as a model for teacher training colleges? It is obvious that the introduction of a three-year (against the present two-year) course for training college students demands that appropriate courses of study be planned. The experiment of North Staffordshire might throw light on to the important problems of re-organizing teacher college courses.

The influence of the University of London extends far beyond England's shores. Many Commonwealth institutions were modelled on and indeed were helped to grow by the University of London. Commonwealth universities can be said to be within the English tradition. Circumstances and the influence of other countries have moulded and modified the tradition. Professor Connell's article shows, for example, how American ideology has been blended with an English outlook to form an institution which is uniquely Australian. But the issue of subject *versus* society is in Australia still very much alive.

We now turn to the American tradition. This too is part European and part indigenous, and Professor Ulich shows in what ways American institutions have broken with European traditions. He compares the life of a European professor with his counterpart in the U.S.A. and points to the implications of university selection processes on both sides of the Atlantic. Professor Ulich's quest is for a method of reconciling American pragmatism with the European university's aim of systematically interpreting and promoting ideas " in the service of truth ". Dr. Kandel's survey of the historical development of higher education in the United States shows how deep are the roots therein of practicalism, and how successfully higher education has contributed to the nation's prosperity. He concludes his assessment with the timely reminder that " American higher education can in fact best be appreciated not if measured by the standards of the traditional concept, which is in any case changing everywhere, but in the light of Flexner's almost axiomatic statement: 'Every age does its own creating and re-shaping; so does every country.'" American institutions have been shaped by many forces, but one of the most powerful has been the desire on the part of the people for education. To-day, as the tide of irresponsible criticism of trends in American education recedes, the re-moulding of a new tradition by thoughtful critics is in process. Professor Brubacher's analysis of what has been called by some critics the anti-intellectualism of American education serves to show how the widely accepted theories of Eliot and Dewey on how intellectual interests can be motivated may degenerate, so that finally the vocational motive is "narrowed down to the motive to practise some particular art". But the answer does not lie in an uncritical condemnation of pragmatic theories of learning as anti-intellectual—they are not. Perhaps the post-World War II conditions in which the U.S.A. finds herself will be as decisive in the modification of academic traditions as were those of the frontier some hundred years ago.

Another continent in which a significant clash of academic traditions arises is Latin America. Here the tradition of the Spanish universities is strong, but cultural and economic ties with the United States have for many decades been firm. Dr. Larrea shows how close are the aims of the universities in every Latin-American country to those of medieval Europe. He points out how the reform movements have all included attempts to re-define these aims; among others reformers have urged that the university cannot and should not "be thought of apart from the culture it serves". The services it can offer include the promotion of "a genuine national feeling" linked with world ideals and the cause of democracy. In these tasks Dr. Larrea sees it as the responsibility of the universities to help formulate national policy. They should also, he argues, investigate social conditions and consider possible solutions to social problems.

These social tasks are frequently regarded by the more traditional European universities as outside their sphere of legitimate activity. University policy in the communist countries, on the other hand, lays heavy stress on the role of the university in social reconstruction. Mr. Lukatela's article illustrates some of the difficulties experienced in his country in transforming the traditional university faculties into institutions whose role will be to contribute to the development of a country whose economic problems loom very large compared with many other European countries.

A consideration of some of the problems of professional education is presented in the next section.

THE EDITORS.

CHAPTER ONE

The Impact of the Medieval University upon the Modern : The Case of Austria

THE problems of the Western universities owe their complexity to the fact that, ever since their beginning and throughout the eight hundred years of their existence down to the present day, the universities have been connected with the most various fields of intellectual life, and also with different communities with their varying legal institutions. As in the past, so to-day the universities have associations with scholarship and philosophies of life, with educational systems and professional training, with Church and state, with law and finance, and in recent times also with the interests of technical progress, economic systems, and even political parties. Furthermore, once they had been formed, these connexions exerted their influence for a long time, either accommodating themselves to new movements or entering into opposition to them, so that present-day problems can only be understood in the context of the entire history of the Western world and the differing forms it has taken in individual lands.

The Medieval Universities

The medieval university came into being as a result of the interaction of three factors: the surviving tradition of learning, the Church and the secular authorities. During the five centuries following the decline of the ancient world (A.D. 600–1100), the world of learning and the cathedral and monastic schools which had borne its tradition had concentrated their attention on assimilating the knowledge which had been handed down to them in a form combining the heritage of ancient learning with the Christian philosophy of the early fathers of the Church. In the twelfth century the inherited tradition of knowledge underwent a critical appraisal, due to fundamental religious, spiritual, and political movements. A new method of discussion and logical thought, syllogistic dialetics, was created and led to independent research in various branches of knowledge; in the *Artes liberalis*, in Aristotelian philosophy, in theology, in canonic and Roman law, and in medicine. The masters of each branch of learning formed a corporation, a *Collegium* or a *Facultas*. In some towns, owing to the work of outstanding teachers, special schools for particular subjects were founded, e.g. law in Bologna, medicine in Salerno, philosophy and theology in Paris. The fame of the teachers and their schools attracted many students from all countries, and the large number of students attracted many teachers to settle in these towns.

The resulting situation created two important problems: first, the protection of the foreign students and the determination of their legal status, because in the Middle Ages the local courts had no jurisdiction over foreigners; secondly, which authorities should award *Licentia docendi* (the right to teach) to the newcomers from outside. The foreign students formed societies or *Nationes*, according to the country of their origin, which later were legally recognized by sovereigns, the king of France for Paris, and the municipality for Bologna. When new universities were founded, the authorities granted the masters and the students the privilege of forming self-governing societies—academic *Communitas* or *Universitas*. The right of teaching in cathedral schools was granted by the bishop's chancellor and in monastery schools by the Abbot or his representative *Pater scholasticus*. The colleges (*Collegia*) of masters demanded this right for themselves on the ground of their professional knowledge as well as the right to award the degrees of *magister* or doctor to their students.

Many Papal decisions granted these rights to individual institutions. Later these privileges were included in Papal Bulls founding new universities. As they received their jurisdiction from the highest Church authority, the Pope, the universities considered themselves Church institutions. At the same time, however, they were established by the secular authority of their countries' sovereigns as self-governing institutions with their own courts and their own finances, generally exempt from taxation. As such societies they were divided into *Nationes* with a rector at the head. As teaching institutions they included many faculties, later stabilized into four: theology, law, medicine, and the Faculty of Arts as a preparatory step towards higher studies. The subjects of the Faculty of Arts included *Artes liberales* and the works of Aristoteles. The degrees awarded by such universities gave the right to teach (*jus ubique docendi*) in all universities of Western Christendom. The first Austrian university was founded in a similar way by decree of the Duke of Austria Rudolf IV in 1365 and a Bull of Pope Urban V.

Renaissance and humanism brought substantial changes in the content of learning, especially in the Faculty of Arts. Side by side with traditional lectures in arts and philosophy, the learning of ancient languages—Latin, Greek, Hebrew—and the reading of classical works took place, accompanied by increased study of mathematics. In the Faculty of Law, Roman law was studied alongside canonic law. Under the influence of similar intellectual movements the secularization of universities and their emancipation from Church control was started. Yet both movements—humanism, and secularization—did not reach full fruition at once. Humanism did not bring to the universities a new system of knowledge, and the development of philosophy and natural sciences was achieved outside the universities by individual scientists in personal exchange of ideas or by newly established learned societies, such as the *Accademia dei Lincei* in Rome, the Royal Society in London, the *Académie des Sciences* in France, or the *Branderburgische Societät der Wissenschaften* in Berlin, initiated by Leibniz. The universities still remained institutions for professional training. The Faculty of Philosophy remained a preparatory step for higher faculties. Its subjects continued to include the traditional studies of the arts (*Cursus philosphicus*), and the Aristotelian philosophy accompanied by *Lectiones humaniores* in classical languages and literature. Neither did secularization make immediate progress. It was more the result of religious schism produced by the Reformation and counter-Reformation which led to a stronger dependence of universities on respective denominations. In Austria it was evident in the control of philosophical and theological studies by the Society of Jesus at the University of Vienna (1627–73).

As a third important factor, the growing influence of the state was added to the changes in the general educational system produced by humanism and denominational control. King Ferdinand I enacted a new statute in 1554 for the universities, the *Reformatio nova*; this was no longer a self-governing constitution, but introduced control by the state. The aim of academic studies was set as the training of the civil service side by side with the requirements of religion (*praecipium propagandae religionis et rei publicae recte gubernandae seminarium*). The Universities of Graz (1586) and Innsbruck (1671) were founded in Austria on identical principles.

The universities in the Protestant areas of Germany followed a similar development. Denominational control was also established there over the whole educational system. Adherence to evangelical faith was demanded as much at Wittenberg as adherence to Catholic dogmas in Vienna. The increasing influence of the state was manifest in the foundation of new universities as land institutions: Halle (1694) by King Frederick I of Prussia, and Göttingen (1737) by King George II of England for Hanover. This character was still more emphasized by the fact that at both universities the king was nominally the rector and the universities were administered only by pro-rectors. At both universities a substantial step forward was made by opening the doors to new branches of knowledge: at Halle to modern philosophy and natural science, and at Göttingen to the new appraisal of classical learning. Thus the way to scientific research was opened also to the philosophical faculty. Yet the establishment of *Lehrfreiheit* (freedom of teaching) was of the greatest importance for the development of German universities. *Libertas philosophandi* was also started at Halle. This was the freedom of scholarly research and theory from any authority except the conscience and responsibility of each research worker. The right of freedom of teaching, coupled with the progressive transformation of universities from mere places of teaching into centres of scholarly research and theory, together with the broadening of the field of their disciplines, resulted in their unprecedented expansion during the eighteenth and nineteenth centuries. This growth was furthered by the emancipation of the philosophic faculty from preparatory functions connected with the development of the nine-year *Gymnasien* as secondary schools and the introduction of the maturity examination as a condition of entry to university studies. The universities had now become places of teaching and research in all branches of knowledge—*Universitas literarum*. Yet this broadening of activities did not go so far as to include training for other professions such as technology, agriculture, forestry, mining, or veterinary. For these professions special institutions were created similar to and ranking with the universities.

State Influence on Teaching Freedom

The development of universities in Austria during the same period followed a different pattern. The first university reform under Maria Theresa (1749–60) brought great progress in medical studies, due mainly to the leading position held by Gerhard von Swieten. It led to the widening of fundamental studies in the natural sciences by establishing new chairs of chemistry and botany, by the foundation of a botanical garden and the transfer of clinical studies to hospitals, made possible by the creation of the first clinics for internal medicine. Soon afterwards chairs of surgery, ophthalmology, and midwifery were established. In the Faculty of Law, studies were widened by the inclusion of modern Austrian law, history of law and 'natural' law (*Naturrecht*), which was established during the eighteenth century 'period of enlightenment'. The second reform of Maria Theresa, in 1774, introduced a new system of chairs in the philosophical faculty, without freeing it, however, from the burden of preparation for higher studies. The intervention of the state in the organization and curriculum of the universities under the influence of the absolutist regime was much stronger than in the rest of Germany. The aim was the transformation of universities from self-governing societies into state teaching institutions. The state would thus be the legislator for and administrator of the universities. All new regulations concerning organization and teaching were issued by the state. Instead of independent administration of its own finances, the university's budget was firmly controlled by the state. The academic courts and exemption from taxation were abolished. Control of studies by the boards of professors and their elected deans was replaced by directors of faculty studies appointed by the state. Teaching could be imparted only through textbooks approved by the highest state educational board—*Studienhofkommission*. Thus there was no *Lehrfreiheit* in the Austrian universities throughout a whole century up to 1848. An additional obstacle to intellectual development of universities was the utilitarian aim, which did not promote learned activity but served the interests of the state by training sound professional men, especially for the civil service. The result was that Austria did not participate in the intellectual progress of universities in other German lands in spite of repeated efforts by professorial boards and even by the *Studienhofkommission* itself. It was only the revolution of March 1848 which opened the way for this development.

The most pressing need was for the *Lehr-* and *Lernfreiheit*. Its introduction was announced by the first constitutional minister of public education, Franz Freiherr von Sommaruga, in a speech at the University of Vienna on March 30th, 1848, with special reference to the German universities. The office of the director of studies was abolished and the examinations were handed back to the academic boards of faculties. The two preparatory years in the philosophical faculty were transferred to the *Gymnasia*—previously six-year institutions, which thus became eight-year institutions. Their maturity examination also became the entrance qualification to the Austrian universities. The completion of university reform was effected by the minister, Leo Graf Thun Hohenstein and his collaborators, Franz Exner, the professor of philosophy, and Hermann Bonitz, professor of classical philology. The new regulations of the Provincial Law on the Organization of Academic Boards of September 30th, 1849, did not revert to the old self-governing constitution of the universities, but treated them, without openly stating it, as state institutions. Yet the universities received wide legal powers of self-government, especially in all questions of teaching and examinations. The control of studies and administration of individual faculties was again entrusted to professorial boards, with deans as chairmen. The affairs of the university as a whole were entrusted to the Senate with the rector as chairman. Rector and deans were to be elected annually for a year. The appointment of professors was to be made by the state, but only after prior recommendation by respective boards of professors. Permission for non-appointed civil servants (*Privatdozenten*) to lecture had to be given by the faculty boards after an academic examination (*Habilitationsverfahren*). It consisted of the examination of the candidate's scholarly works, an interview and a probationary lecture. The state only retained the right of formal approval of the faculty's decision. Degrees were to be awarded by universities on their own authority after an examination by respective professorial boards (*Rigorosen*). However, as the universities also imparted professional education for various professions, the state would in future issue regulations for studies and examinations as well as new regulations for the doctor's examination in accordance with the progress of knowledge. Yet the basis of *Lehrfreiheit* would be safeguarded. This was also confirmed in the fundamental law (*Staatsgrundgesetz*) on December 21st, 1867, by Article 17: "Knowledge and its teaching is free." The University Statute of minister Thun Hohenstein was reformulated in 1873 in the law of April 27th concerning the organization of academic authorities, but the liberal principles were entirely confirmed.

Side by side with the universities, Austria also created special institutions for particular studies and professions which later—as *Fachhochschulen*—received equal rank with the universities. In 1872 the *Technische Hochsculen* in Vienna and Graz, and the *Hochschule für Bodenkultur* (agriculture) in Vienna, were founded. Further foundations were: in 1894 the *Montanistische Hochschule* (mining) in Loeben; in 1897 the *Tierarztliche Hochscule* (veterinary) in Vienna; and in 1919 the *Hochscule für Welthandel* (international commerce) in Vienna. Although the organization of these institutions generally followed the model of universities, nevertheless the Austrian system of higher education was in some ways not made comprehensive, and by later additional decisions became difficult to survey. This reason, as well as new demands of higher education, influenced the Federal Minister of Education of the day, Dr. Heinrich Dzimmel, to issue a series of fundamental laws for the entire system of higher education, which later served as a legal basis for detailed regulations, especially for new studies and examinations.

Such new regulations had to solve problems inherited from the past of these higher institutions: their legal status and their self-government; the aims and tasks of higher institutions; the foundations of *Lehrfreiheit* and the connexion between research and teaching; professional training by the universities. To these new problems were added: the demand for higher education by able but poor students; the possibility of general education and the training of character by the educational agencies of higher institutions of scientific research—such as the Academy of Sciences, established in 1847, and the newly created research institutes. However, this question had already crossed the border line of higher education.

The Growth of Hochschulen

The first fundamental law was that of July 13th, 1955, concerning the organization of higher education. The institutions for higher study are the three universities, the theological faculty of Salzburg, and the six technical institutes previously mentioned. The *Hochschulen* are Federal institutions (*Anstalten des Bundes*) and are directly controlled by the Federal Ministry of Education. Thus they are no longer self-governing institutions, or in modern terminology 'institutions under public law' (*Körperschaften öffentlichen Rechtes*). Nevertheless they possess real self-government in respect of particular aspects of their work. The activities of higher institutions are thus divided into a sphere of state action in which they and their authorities are bound by the directions of the Federal ministry and a sphere of autonomous action in which they are free of any direction by decisions made by the authorities. The universities and the higher technical institutions are divided into faculties. The universities have four faculties: (1) Catholic theology; (2) law, politics, and economics; (3) medicine; (4) philosophy. The University of Vienna has in addition a Faculty of Protestant Theology. The *Technischen Hochschulen* have three faculties: (1) building and architecture; (2) mechanics and electrotechnics; and (3) natural sciences. The striking difference in the arrangement of faculties as compared with foreign countries is the inclusion in the Faculty of Philosophy of the faculties both of arts and of sciences as they are known in English universities; i.e. this faculty embraces philosophy, history, and philology as well as mathematics and natural sciences. Only the institutions with several faculties have a Senate as well as faculty boards of professors. The Senate is the highest academic authority. It consists of the rector, annually elected, of the retired rector from the previous year (*Prorektor*), of annually elected deans and retired deans from the previous year (*Prodekanen*), as well as of representatives of faculties (*Senatoren*) elected for three years.

As the *Hochschulen* have no status as corporations, their autonomous activities are not derived from a definite statute but are defined by the establishment of precedents arising from their own decisions. These precedents are classified, according to the degree of self-government, into: (*a*) those which have to be presented to the Federal ministry by professorial boards—as, for instance, the recommendations for new appointments to chairs or the foundation of new chairs or special institutions; (*b*) those which have to be simply confirmed by the ministry after the decision of a professorial board—as, for instance, permission to lecture given to *Privatdozenten*, or the election of academic representatives; and (*c*) those which are independently decided by professorial boards—as, for instance, the direction of academic disciplines and teaching institutions, the faculty curricula in so far as they are not decided otherwise in regulations, and the award of academic degrees. To these must be added special cases, in which the *Hochschulen* act as legal entities—as in the acceptance of bequests, their administration and distribution. The autonomy of *Hochschulen* is thus not represented in the form of statute but in the accumulation of enumerated special rights. Nevertheless a unifying principle of self-government can be stated : these institutions always have autonomy of freedom of research and teaching, which thus is based on the principle of *Lehrfreiheit*.

The aims of *Hochschulen* are described in the above-mentioned law as scholarly research and teaching, which includes professional training, imparting higher general education and the training of future scientists. The principles for realization of these aims are freedom of research and teaching and their close connexion. Correlation of research and teaching does not mean only that each *Hochschule* has to combine them, but also the principle that academic teaching should be based on research. That means that teaching should start with facts and sources indicated by research, and should use criticism and methods arrived at through research.

Confirmation of these principles and the regulations for studies based on them will be enacted by a law on higher studies (*Hochschulstudiengesetz*) which is in preparation just now. The double purpose of *Hochschulen* is the promotion of scholarly research and teaching and the training of future members of certain professions. This problem will be solved by establishing two courses of studies : (*a*) those which lead to the acquisition of ability for independent research and a doctor's degree, and (*b*) those which train men for the scholarly professions followed by the award of an appropriate diploma. By this arrangement the requirements for a doctor's degree can be augmented and the status of the Austrian doctorate put on a higher level.

State Aid

The impoverishment after two wars of large groups of the population, especially of the previously wealthy middle class, has resulted in a situation wherein many young people, although capable of following higher studies, have been unable to do so or have had to work for their maintenance during the period of studies. This defect will be put right by a law giving the state means of helping many capable students to undertake full-time study by the award of maintenance grants. In addition, students' hostels will be established and a general health insurance introduced. This law will also give the opportunity to provinces and communities as well as to welfare organizations and foundations to integrate their services with the Federal provisions.

The complexity and expense of the many modern appliances necessary for research has resulted in some inadequacy of present institutions and has pointed to the lack of financial means provided by the state. This is true of the organization of all higher education, including the Academy of Sciences. In some countries societies were formed for the foundation of independent research institutes. Thus in Germany the *Max-Planck-Gesellschaft* maintains a group of institutes for natural sciences, and various industrial concerns have established special research laboratories in applied sciences for their own service. Austria is insufficiently wealthy to create such institutes in adequate measure. There is great anxiety, therefore, that Austria will not in the near future be able to compete with other countries in productive research owing to a lack of sufficient and well-established institutes. It is necessary that the existing *Hochschulen*, the Academy of Sciences and the large libraries, collections and archives should be so organized and financially subsidized that they will be able to conduct productive research at the high level demanded by modern standards.

The Problem of General Education

The universities have at all times also influenced the development of personality in their students through professional ethics whilst they trained students for particular professions. No doubt scientific activity has influence and value for the training of character in so far as the search for truth for its own sake is genuine goodness (*ein hohes Gut*) and the final purpose of man is spiritual. However, definite knowledge in the form of general education or training for life for all students is regarded as the task of the *Hochschulen*. The Austrian law for the organization of *Hochschulen* included also the " imparting of general education ", although without clear definition. Concerning the organization of such ' general education ' two possible courses come to mind. Either two semesters (one year) of preparatory study obligatory for all students before they start professional training; complementary lectures, addresses, or activities side by side with professional studies, which would give a universal picture of nature and humanity; or an introduction leading to thought on the nature of man, his tasks in cultural and social development with an international outlook on the ultimate purpose of mankind. The first way was advocated by the Spanish philosopher (José Ortega y Gasset, *La Mision de la Universidad*, Madrid, 1930). The second is at present attempted in various higher institutions in West Germany. They envisage a special institute within the university, whose activities would embrace the correlation of scientific branches of knowledge and questions of the philosophy and politics of culture (R. Schwarz, *Wissenschaft und Bildung*, Freiburg, 1957). In Austria discussions about such *Studium generale* have found neither a decisive formulation, nor have led to definite organizational forms. Attempts in this direction have remained in the form of traditional lectures in which representatives of various branches of knowledge collaborated.

RICHARD MEISTER.

CHAPTER TWO

New Professional Demands in Europe

ALTHOUGH to-day in some countries higher technical education enjoys equal academic status with the medieval university faculties of theology, law, medicine, and arts (or philosophy), its history is quite distinct and more recent. The old *studium generale* was dominated by theology and the dogmas of the Christian Church, or churches after the Reformation. The art of pleading in the law courts, the art of healing, and the art of teaching were conceived as practical applications of Christian theology, and even in our time they have not yet entirely emancipated themselves from this traditional subordinate position. Higher technical education, on the contrary, developed for purely utilitarian reasons during the Industrial Revolution—itself the result of numerous scientific discoveries and inventions. Technical studies were in no way connected with theology and often went contrary to the dogmatic teachings of the Church. They were suspected of engendering heretical opinions, and in some cases fanatical mobs burned down and destroyed new institutions and laboratories. Under these circumstances institutions of higher technical education were established outside the old universities on the initiative of private individuals and with the help of secular governments. Often they were founded by enlightened kings or princes as State institutions entirely maintained by State funds. As such they could not attain the semi-independent position of the universities, and until the twentieth century their academic status was notably inferior. Only gradually have they grown into institutions which are increasingly recognized by the old universities as equal. In some cases they have been incorporated as new technical faculties of engineering, agriculture, mining, and commerce.

The history of higher technical institutions, then, begins in the second half of the eighteenth century. Previously technical, naval, military, or commercial schools or private academies were at the secondary level and could not claim to be institutions of higher learning. In this development, the pioneering countries were France, Germany, Spain, and Russia. In the eighteenth century these nations were all ruled by enlightened autocrats, and with the exception of Germany had highly centralized governments and systems of administration.

England was, however, a recognized training-ground in agriculture, mining, and commerce, and many foreigners received their technical education in English mines, factories, or commercial houses. But, England was ruled by aristocratic Whig families, who were suspicious of State intervention. Consequently no higher technical institutes were established, since private means were insufficient to maintain them permanently. When, a century after the rise of Continental institutes, England began to found higher technical institutions the situation had changed. The modern universities of the nineteenth century were willing to accept within their organization new studies grouped as additional faculties. This political comparison accounts for the notable differences of organization between higher technical education in England and other English-speaking countries and the Continental countries of Europe.

Agricultural Education and the Physiocrats

The school of physiocrats was of English origin, since it was an Englishman, Richard Cantillon, who published in 1755 the first 'physiocratic' tract in Paris. But as Quesnay published his first articles in the *Encyclopédie* in 1767 and expounded his theory in a separate book entitled *Physiocratie*, he is usually considered to be the founder of the movement. According to his theory agriculture as the primary means of production was the basis of all national economy. Although industry and commerce added to the prosperity of the country they were considered by Quesnay as *classes stériles*. Thus, the modernization of agriculture should be the primary concern of government. Again it was in England that the importance of agriculture was first recognized. The introduction of the steel plough, the use of fertilizers, the care of animals, and the preservation of the soil were advocated in England and Scotland by private societies before the Continental countries began to establish institutes of agriculture, veterinary science, and forestry. But the English Society of Arts, although promoting inventions and new methods of production, being a private body, did not found institutes of this kind. On the other hand, the economy of Continental societies was subsidized and controlled by their governments. Thus, although England was in advance of France in inventions, it was France who led both in developing the theoretical foundations of the school of physiocrats (Quesnay, Mirabeau, Dupont de Nemours, Turgot, and others) and in the establishment of higher institutes. Founded by private individuals who were adherents of the new economic theory, the institutes were invariably taken over by the government and became State institutions. From these the present *Grandes Écoles* developed.

The first *École Vétérinaire* at Lyons was founded in 1761 by Claude Bourgelat, who gathered together a team of outstanding scientists as professors (Daubenton, Vieq d'Azier, Fourcroy, Gilbert, and Brussonet). The government was so impressed that it charged Bourgelat with the task of opening a second school at Alfort, and he was appointed its first director in 1766. One of Bourgelat's earliest students, Abbé J. B. Rozier, succeeded him as director at Lyons. He was a well-known physiocrat and published ten volumes of *Cours complet d'agriculture*. In 1786 he founded an agricultural school at Lyons, and Turgot appointed him to survey the position of agriculture in the south of France and in Corsica. In 1789 he presented to the *Assemblée Nationale* a memorandum advocating the foundation of four regional schools of agriculture. His scheme came to fruition later with the establishment of the *École Nationale d'Agriculture* at Grignon in 1826, the *École Vétérinaire* at Toulouse in 1828 (first founded by the Convention in 1793), and the *École Nationale d'Agriculture* at Rennes in 1830. Among his foreign students Rozier trained Abilgaard, the founder of the first veterinary school at Copenhagen, Denmark, in 1773; Stillingen, the first director of the veterinary school at Hanover, founded by George III in 1778; and P. Hernquist, the founder of the first veterinary school at Scara, Sweden, in 1772. Similar veterinary schools were opened in Dresden (1774), Vienna (1776), Budapest (1786), Berlin and Munich (1790), Milan (1791), London (1791), Madrid (1793), and Brussels (1832). The London Veterinary College (now the Royal Veterinary College) was the only eighteenth-century English technical school for higher education. Although to-day it is a school of the University of London, it has preserved its separate identity. The Medical Academy of St. Petersburg, founded in 1791, included veterinary studies. The first Russian institute of agriculture was opened in Kharkov in 1816.[1] In Germany the oldest school of agriculture was founded at Giesen in 1769. It became an institute of higher learning when a faculty of veterinary was added in 1826. An institute of agriculture was founded in Stuttgart in 1818. The Swedish Institute of Forestry at Stockholm (1828) and the Institute of Veterinary Science at Brussels (1832) also belong to this group. In Italy the pioneer of higher agricultural education was Pietro Arduino of Padua. As a result of his initiative the Senate of Venice established in 1765 the first chair of experimental agriculture at Padua, to which Arduino was appointed. It was followed by the foundation of a special Academy of Agriculture in 1785.

Although all these institutes were special schools of higher learning outside the universities, they were not classified in Germany as *Technische Hochschulen*, which title was reserved to schools of engineering and technology. In France they belong to the *Grandes Écoles* together with the schools of engineering.

---

[1] The Institute of Forestry at St. Petersburg in 1803.

Schools of Mining

Mining is a very old industry. The Romans, for example, extracted metals for military purposes. With the invention of gunpowder the manufacture of cannons became most important for both navies and armies. In the eighteenth century Great Britain was leading in both mining and metallurgy techniques, and in 1760 the famous munitions factory at Carron, Scotland, was founded by Dr. John Roebuck. He introduced a new cannon known as the carronade which was supplied not only to the British armed forces, but to foreign countries, including Spain. Foreign mining engineers from Germany, Scandinavia, Spain, and Russia used to come to England and Scotland to complete their training and incidentally to find out the secrets of the British metal industry. But the English metallurgists relied on apprenticeships in the mines and arms factories. Secrets were thus passed from master to apprentice and special schools of engineering with courses of lectures open to all were not established.

Continental countries, with a different tradition, believed in theoretical instruction and central control. As with schools of agriculture and veterinary science, they established institutions of higher learning in mining and metallurgy which were far in advance of England. But whilst agricultural and veterinary schools were the outcome of a physiocratic theory to promote the peaceful development of free trade among nations, the schools of mining and metallurgy were established by rival Great Powers for the purposes of war and aggrandisement. The wars between the Habsburgs and Bourbons, the wars of Frederick the Great, the wars between England and France, and the American and French Revolutions provided reason enough for a general demand for better artillery, better methods of mining, and the improved production of metals.

The pioneering school was the *Bergakademie* at Freiberg, Saxony, which was officially founded in 1766. Yet Freiberg was a centre for metallurgical studies even before this date. In 1739 three Russians, the famous Lomonosov and his companions Vinogradov and Reisner, were sent there to study advanced metallurgy under Henckel. After the opening of the *Bergakademie* and the appointment of a distinguished team of specialists, Freiberg was acknowledged in all countries as the best school of mining in Europe. Ch. E. Gellert, for ten years assistant to Euler at St. Petersburg Academy, was appointed professor of mathematics, chemistry, and metallurgy. J. F. von Charpentier was professor of mathematics and physics applied to mining. The most famous appointment was of A. G. Werner, as professor of mineralogy and geology.

He was the founder of a new subject of 'geognosy' and of the 'school of neptunists'.

These names attracted scholars from all lands. The governments of Spain, Russia, Poland, Portugal, and Naples sent and maintained State scholars there. During the period 1771–1800 eleven Spaniards were sent; among them were the two brothers El Huyar. Ten Russians, six Poles, six Italians from Naples, and three Portuguese were all sent by their governments later to form cadres of mining engineers in their countries. From Scandinavia came seven students and from Great Britain nine, one of whom, in 1787, was James Watt junior. Incidentally it was Roebuck of Carron who helped Watt senior to build his steam-engine and interested him in the study of metallurgy. Among the German students was Alexander von Humboldt, who later did pioneering work in Latin America. In their turn, these foreign students of Freiberg, on returning home, became pioneers of metallurgy and mining. We shall mention later the Spaniard Fausto El Huyar, for example, who founded two mining schools, one at Vergara in Spain and another in Mexico. The Russian, Andrey Deriabin, was sent by his government to study mining at Freiberg and to Paris and also to England. Whilst in England he became a member of the Manchester Literary Society, of which James Watt was secretary. On his return to Russia Deriabin was appointed director of the Mining Institute founded in 1773, and director of the Department of Mining.

Mining was started systematically by Peter the Great, who sent four students to Leyden University to study mathematics and physics in their application to mining. Peter founded a school of engineering and a school of artillery in 1712. These were later combined to form an engineering cadet corps. But it was not an institution of higher learning, and its graduates had to go abroad for special training in metallurgy and applied chemistry.

The second German *Bergakademie* was established at Clausthal, Prussia, in 1775. It grew out of a modern department of the Clausthal Lyceum, which Rector Rettberg made into a separate and special mining school. The French *École Royale des Mines* was the result of the private initiative of B. G. Sage. In 1759 Sage, only 19 years old, started free public lectures on mineralogy and chemistry. He received 30,000 francs from private sources and built a laboratory. In 1778 he established a chair of chemical mineralogy at the Academy of Sciences and presented a memorandum to the government advocating the foundation of a higher school of mining. In 1783 the King issued a royal decree establishing the School of Mines with Sage as director. The government appointed twelve State scholars with an annual maintenance grant of 600 livres each.

In Sweden the study of mining and mineralogy was closely connected with the working of the iron-ore deposits, the best in Europe, which were in great demand for military purposes. Early in the eighteenth century two Swedish pioneers, Ch. Polham and Em. Swedenborg (later famous as a mystical philosopher), were sent to England to study mining. On their return Polham was appointed director, with Swedenborg as his assistant, of the Bureau of Mines, which had been established in 1715. Their laboratory gradually developed into the Stockholm College of Mineralogy in 1770. The Stockholm Institute of Technology which grew out of the college was opened officially only in 1826. Meanwhile the study of metallurgy and mining was promoted by the famous professor of Upsala University, T. Bergmann. He was appointed professor of mathematics in 1761 and later of the applied chemistry of metallurgy. He was a personal friend of the Viennese metallurgist I. von Born and was in contact with scientists in every country. Because of Bergmann's international fame, Upsala attracted students from all over Europe, including Spain and Russia. One of his students was Juan José El Huyar, who with his brother Fausto discovered tungsten.

In Spain the main factor in the development of higher technical education was the Basque Economic Society at Vergara, founded by Conde Peña Florida and the Marques de Narros in 1765. The first graduates of the Vergara technical school, sons of the two founders, were sent to Paris in 1768 and then to the Stockholm College of Mineralogy to study mineralogy and chemistry with Gustav Engestrom. Their two younger brothers were sent to Vienna to study metallurgy under I. von Born. There they met Fausto Ey Huyar. El Huyar was appointed professor of mineralogy at Vergara in 1778, and through his influence a separate Royal School of Metallurgy was established in 1782. When he was sent to Mexico, El Huyar helped to establish a school of mining in 1792. One of the members of the Basque Society, an outstanding educationist, G. M. de Jovellanes, founded another Spanish school of mining at Gijon, Asturia, in 1794. Both Spanish schools were maintained largely by State funds and in fact were controlled by the government. In Italy special mining schools were founded only in the nineteenth century, but in 1764, a Royal School of Artillery was opened in Turin, whose director, de Antoni, was professor of metallurgy.

In Austria and Bohemia the leading pioneer was Ignaz von Born. In 1770 he was appointed *Bergmeister* in Prague and was instrumental in the founding of the Academy of Mining at Stavnice in Bohemia (this Academy was moved to Pribram in 1849). At the same time an Academy of Mining was established at Chemnitz in Austria. Two friends of Born were appointed as professors there—Rudolf Wrbno as professor of mining, and Anton von Ruprecht as professor of chemistry. In 1776 accused him of heresy. He therefore persuaded the Prime Minister, Tanucci, to found a new institution, the *Scuola di Commercio e di Meccanica*, in 1754, where a special chair of economy, the first in Europe, was created for him. In 1757 Genovesi published the three volumes of his work *Storia del Commercio del Gran Bretagna*—a title which made quite clear the source of his inspiration. His pupil Filangieri was considered in the first rank of contemporary politico-economists, and was elected as honorary member of the Bern Economic Society, one of the leading physiocratic societies of the period. The next commercial academy was founded in Lisbon by Pombal, also under English influence. Both these schools were State institutions controlled by the governments of Naples and Portugal respectively.

The first German academy was the result of private initiative. It was founded in Hamburg, an independent Hanseatic town, which was closely connected with England by trade and tradition. Johann Georg Busch, mathematician and writer on economics, opened his *berühmte Handelsakademie* ('celebrated commercial academy') in 1767. His co-founder was F. Ch. Wurms, who left for Sweden in 1771 to open a commercial school in Wilhelmsdal in the year 1785. Busch visited England several times and was well acquainted with the private English commercial academies. He regularly had English students at Hamburg. The *Akademie* was started on an English model but gradually developed into a higher-level polytechnic. In 1793, for instance, a friend of Goethe, F. von Stein, studied technology with Brodhagen and mechanics with Busch. Alexander von Humboldt also received his initial scientific training at Busch's academy. The Hamburg Academy, the first of its kind in Germany, became known in Vienna, and Maria Theresa asked Busch to write a memorandum on it. This he sent to her, and in consequence a State *Handelsakademie* was opened in Vienna in 1770. Russia founded her first commercial academy in Moscow in 1810, and ten years later France the *École Supérieure de Commerce* in Paris. The Belgian Commercial Academy was opened at Antwerp in 1852.

The twentieth-century foundations can be stated only approximately, as all countries continue to create new technical institutions every year. In the case of Soviet Russia policy was changed several times, and the number of technical institutes has either increased by the division of larger institutions into smaller ones, or the number has been decreased by the combination of smaller institutions into one larger polytechnic. We might note the following general features, however: agriculture and mining were first in the field and most of the institutes for these subjects were founded during the period 1750–1850. Engineering schools were developed mostly in the nineteenth century (except in the case of the Soviet Russia). The growth of commercial institutions is the work of the twentieth century. This pattern of development reflects the various phases of industrial change.

The following table summarizes the position:

TABLE OF HIGHER TECHNICAL INSTITUTIONS

Institutions	*18th Century*	*1801–60*	*1861–1900*	*20th-century Foundations*	
				Europe	*Soviet Russia*
Agriculture, veterinary and forestry	15	10	10	10	110
Mining	10	3	1	2	20
Engineering	7	16	18	20	110
Commercial	4	5	6	24	25
TOTAL	36	34	35	56	265

Conclusion

As we pointed out in our introductory remarks, the higher technical institutions have grown up outside the old universities and actually in opposition to them. It was natural that the medieval tradition, dominated as they were by clerical influence, should deny to the new institutions an academic status and should treat them as *parvenues* not acceptable within the society of recognized universities. In the governments of every country were representatives of the classical scholars—graduates of the universities—who, though otherwise quite modern in outlook, had to pay attention to this tradition. Consequently they did not introduce revolutionary legislation. Whereas the heads of the universities enjoyed the title of *Rector Magnificus*, the heads of technical institutions were simply directors. Degrees were granted grudgingly to the graduates of technical institutions, and even when the latter were permitted to award the degree of 'Doctor of Engineering' it was inferior in standing to the medieval D.D., D.Litt., D.LL., or M.D. In Germany, 'Doctor of Engineering' had to be printed in Gothic script, whereas the titles of the old degrees were in Latin.

This contempt for the utilitarian (banausic) values of technical education survived all the revolutionary changes of the twentieth century and can still be detected even in Communist Russia, despite all official attempts at an equalization of prestige. The different origin of the universities and the technical institutions was reflected in their internal organizations. The old universities enjoyed an autonomy, and even now with the growing intervention of the State still retain a certain measure of independence, and are treated by the government with respect. The technical institutions founded by secular governments were maintained, controlled, and financed by the State. They were founded, closed, or transferred from place to place according to the needs or policy of the government, and sometimes in accordance with the temporary opinions of ruling ministers.

Equality of status and academic independence are problems, the solution of which cannot easily be delayed much longer. Whether the traditional privileges of the universities should be extended to new institutions, or the universities should be levelled to the dependent position of technical institutes, is a question of great importance.

N. HANS.

CHAPTER THREE

The Rise of Civic Universities in England

In this short account no attempt has been made to deal with the early history of the various civic universities. Attention has been concentrated upon the actual historical determinants of their progress in the nineteenth century. We see how medical needs and the development of industry and commerce, the emancipation of women, and so on played their part in the growth of these universities throughout England. Finally, reference is made to the discussions and activities out of which the Universities Grant Committee developed.

Medical Needs

The statute 55 Geo. III (1815) endowed the Society of Apothecaries with the power of awarding its licentiate on the results of a written examination conducted by a court of twelve examiners, to candidates who had served a five-year apprenticeship and attained their majority. This Act stimulated a number of medical schools in London and the provinces. In London, the Charing Cross Hospital, founded in 1818, began as an integrated medical school and hospital, and its 'Objects and Intentions' dated March 31st, 1821, underlined this by proclaiming that it was intended " to promote . . . not only the welfare of the Poor but the improvement of the Healing Art and the good of the Community at large" (1).

Eight provincial towns established medical schools to prepare students for these examinations, and six of them envisaged universities to develop from these. In Leeds, John Marshall read a paper to the local Philosophical Society in January 1826 with that end in view (2).

In Newcastle, T. M. Greenhow read two papers before the Newcastle Literary and Philosophical Society on April 5th and June 7th, 1831, stressing the 'expediency' of establishing " an academical institution of the nature of a college or university for the promotion of literature and science ". This was before a school of medicine opened its doors on October 1st, 1834 (3).

At Birmingham, the founder of the local medical school, Dr. Sands Cox, scoured the Continent for ideas to improve the teaching of medicine in the Midlands, and on his return in 1831 determined to make Birmingham " the seat of a grand scientific and commercial college ". Within ten years he had established Queen's College, which by 1843 was offering architecture, civil engineering, law, theology, general literature, and arts to such students as might wish to study there. One of Cox's former patients gave £25,000, and together they hoped to "lay the foundation of a great central university, based upon sound Church of England principles" (4).

At Liverpool, when the reformed corporation was elected, it was suggested that a university was needed to complete the civic structure (5). At Manchester in 1836 the Pine Street School of Medicine sponsored a similar proposal (6). At Bristol in 1840 the leaders of the medical profession formally discussed the possibility that the city might become "the seat of a medical university" (7).

University of London

One of those who began teaching postulant apothecaries was George Birkbeck, a thirty-year-old doctor. With a friend, he founded the Aldersgate School of Medicine. Birkbeck had been a great popularizer of science ever since his first post as Professor of Natural Philosophy at Anderson's Institution in Glasgow. On leaving for London he became a founder member of the London Institution in 1805, a middle-class body for the "general diffusion of science, literature and the arts, by means of lectures and experiments". After a new building was opened in 1819 he began to lecture there too. (8).

Another of Birkbeck's friends was Henry Brougham, who, as one of the lions of the *Edinburgh Review*, had won himself a position as a radical leader in London. Both were social obstetricians. One birth at which they had assisted was that of the Mechanics' Institute in Southampton Row, London. The other was that of a university of London.

The idea of a university in London was not new. There were a number of proposals before that of Thomas Campbell in 1820 (9), and the Dissenters also had plans for a university (10). With Francis Place, the radical Taylor of Charing Cross, and Isaac Goldsmid, the financier and philanthropist, Brougham and Birkbeck helped it take shape in February 1826, with Leonard Horner as its first warden.

Brougham enlisted a formidable group, which hoped to improve medical education and research. Most notable was Charles Bell, who had bought the Great Windmill Street Medical School in 1812, and sold it to Herbert Mayo to become a professor at Brougham's foundation. "Bell's assistance", wrote Hale Bellot in his history of University College, London, "was of the first importance to the establishment of the medical school, and his influence upon the appointments to the medical chairs seems to have been great" (11). Other attempts to enlist professional groups can be seen in the establishment of Chairs of Philosophy, and abortive attempts to create Chairs of Mineralogy, Engineering, Design, and Education. Within five years of its foundation, it had enrolled over five hundred students.

It also stimulated the establishment of a rival institution, affording the same professional facilities, but under Anglican control. George D'Oyly, rector of Lambeth—its founder—called not only for another university in London but one in the north, together with an expansion of Oxford and Cambridge. He obtained the backing of the Duke of Wellington, the two archbishops, some city financiers, surgeons, and a not inconsiderable number of provincial men of substance to found King's College in the Strand where, in addition to " religious and moral instruction ", other subjects like " classical learning, history, modern languages, mathematics, natural philosophy, medicine and surgery, chemistry, jurisprudence, etc." were to be studied, and " specific preparation for the particular professions " was to be undertaken (12). That ' specific preparation ' applied especially, as at London University, to medical students. In 1834 these numbered 347 of the 469 students at Gower Street, and 241 of the 446 students at King's. It is symbolic that Herbert Mayo, who had bought the Great Windmill Street Medical School from Charles Bell on his departure for London University, now himself sold it to take a similar appointment at King's. Much has been made of its rejection of Liebig as Professor of Chemistry, but there were others whose appointment testified to the importance attached by the college to physical science. J. F. Daniel, inventor of the hygrometer which bears his name, was elected to the Chair of Chemistry in 1831, and went on to construct the first electric battery which was able to give a constant current; while Charles Wheatstone, elected to the Chair of Physics in 1834, was a pioneer of spectrum analysis, of submarine telegraphy, of electrical recording instruments, and of the stereoscope.

With such common ground between them, combination was almost inevitable. A charter granted in 1836 enabled them to associate as the University of London: a title relinquished by the college in Gower Street for that of ' University College '. Oxford, Cambridge, and the College of Surgeons, which had sustained a strong opposition to the whole project, were overborne by the support which the City of London gave to its own university. The Liberals rejoiced in it as the first non-sectarian university to be established in England with powers to grant degrees in arts, laws, and medicine.

London University developed into a vast examining machine. Many flourishing provincial institutions were thereby encouraged. By 1851, twenty-nine general and nearly sixty medical colleges were affiliated to it.

A fourth university (or the second of the civic type) was founded at Durham, partly " to anticipate any mongrel affair at Newcastle " but chiefly to "ward off the blow" that was expected from the Radicals on the wealthy Durham chapter (13). The enfranchising of the South Shields estate, and a liberal episcopal donation, provided the necessary finance. The use of Durham Castle provided a habitation; and the award of a charter in 1837 enabled degrees to be awarded. But the sciences obtruded. The teaching of engineering in the very first year (to the bishop's great pride), and the presence of J. F. W. Johnston, the notable agricultural chemist, on the academic staff for twenty-two years, were testimony to this. But its marked similarity to Oxford and Cambridge (evinced in the opening of Hatfield Hall in 1846 and Cosin's Hall in 1851) is perhaps best symbolized in the literary activity of Edward Bradley, one of its early graduates. Bradley, a contributor to *Punch* and the *Illustrated London News*, is perhaps better known as Cuthbert Bede (14), the author of *The Adventures of Mr. Verdant Green, an Oxford Freshman* (1853), the first of a trilogy, and an outstanding example of a *genre* which was to become increasing popular—the university novel.

The Northern Colleges

The wish to break down all forms of preferential sectarianism animated John Owens to found a college in Manchester, which opened its doors in March 1851. Like London, Owens College looked to Scotland for ideas if not for men: its first principal, A. J. Scott, was a son of the manse. But German standards, forcefully projected by H. E. Roscoe as Professor of Chemistry from 1857 to 1886, did as much as anything to create the civic university *ethos*. Roscoe organized the first department of organic chemistry in the country under Carl Schorlemmer, and provided a special four-year course on chemical technology. His arts coadjutor, A. W. Ward, had spent his boyhood and adolescence in Germany. His productive scholarship set the tradition in the humanities, but extension of knowledge was as necessary for a university teacher as its transmission. The Manchester tradition was to predominate in the second half of the nineteenth century as the civic university pattern took shape (15).

The year after Ward began his thirty years' association with Owens College, there began a period of national convulsive therapy. The shocks were cumulative: the poor showing of English exhibits at the Paris Exhibition of 1867; the sight of Belgian iron girders being used in the extensions to South Kensington, home of British technology. Lyon Playfair, one of the ablest chemists of his own generation and the next, left a comfortable teaching laboratory to point the painful moral that England could now no longer rely on empiric skill and illiterate workmen if she was to hold her own, much less, excel her competitors.

He was joined by Matthew Arnold, the H.M.I., John Scott Russell, the engineer, and Sir Charles Dilke, the radical (16).

Public interest was excited. A Royal Commission under the Duke of Devonshire was appointed. Manufacturers began to see that money spent in education was a legitimate widening of the field of investment, not only to improve workers' technique, but also as an instrument of social peace. For the new wage arbitration boards set up in the 'sixties and 'seventies needed workmen who could think and argue in responsible terms with masters on the board. The workers themselves realized that improved educational facilities opened more avenues of social advancement. Though some lamented the loss of earning power entailed by the raising of the school-leaving age, they never carried much weight at the Trades Union Congress, which began to be held regularly from 1869. Lastly, there were some who saw in improved education of the farmer the only real clue to the recovery of British agriculture. Large-minded squires like Sir Thomas Acland, who fathered the system of school examinations, were not as rare as hitherto supposed. The Rev. J. L. Brereton had established the 'county' schools in Devon (1858) and Norfolk (1871) for farmers' sons. In 1873 he founded Cavendish County College at Cambridge, to connect his 'county' schools with the universities. It lasted for twenty years. Brereton was anxious to see a national system of county colleges, and published a plan.

American economic expansion on the one hand, and German imperialism on the other, were affecting the whole of Europe. Denmark, swamped by the American export of corn, had to remodel her economy around pig-rearing. Such remarkable adaptability, following closely on her rape by Prussia in the 'sixties, provoked international admiration (17). Sweden, fired to emulation by the enterprising newspaper *Aftonbladet*, investigated the reason and found it to be in Denmark's adoption of the folk high school. So Sweden, who had to educate a newly enfranchised peasantry, adopted folk high schools too—so rapidly that by 1872 there were twenty-six built and filled. Swedish advances in education served as a further example.

The neotechnic state demanded a new principle of selection. Blood and property still told powerfully in an aspirant's favour, but the principle of achievement was beginning to edge the first two into the margin. More and more the *élites* had to serve a dominant class based on a highly specialized industry and an efficient bureaucracy. The joint stock company needed a specially trained administrative and technical staff. Somewhere this new *élite* had to be found, together with what was referred to at the time as "the noncommissioned officers" of industry. The older universities, already disturbed, had not the capacity nor the intention of descending to the level of technical high schools.

So the florescence (the architectural style justifies the image) of the new university colleges began in the industrial towns. Some grew around the local mechanics' institute, or medical school; others were grafted on to existing literary and philosophic institutes. After 1870 their growth was accelerated by municipal pride and industrial munificence. Each college mirrored the techniques of its town. Newcastle Royal College of Science (1871) was specifically planted in a mining area where its teaching would do most good (18). So were Yorkshire College, Leeds, for textiles (1874) (19), and University College, Liverpool, for commerce (1881) (20)—both of which later emerged to fully chartered status after a short period of affiliation to the University of Manchester. Firth College, Sheffield (1879) (21), grew from the first people's college in Great Britain. So exclusively practical was Sir Josiah Mason about his bequest for Mason Science College, Birmingham, that theology, mere literary study, and education, were excluded. Yet even when they were admitted and Birmingham became a university in 1900, commerce was made a faculty, and brewing set up as a department (22). The financial help of South Kensington Science grants and the protracted stimulus of the University of London examinations helped the University Colleges of Nottingham (1881) (23), Reading (1892) (24), and Exeter (1893) (25) to maintain a standard of teaching. All these colleges did much to break up the pupil teacher system, and provide the avenues of social mobility which could help to leaven the collectivist lump.

In their growth, the provincial colleges, especially one at Bristol (26) (1876), found willing helpers at the two older universities. At Oxford, Benjamin Jowett (elected Master of Balliol on September 7th, 1870) did all he could to help them, using his many contacts to press for more scholarships and later, as we shall see, pressed for state grants to support them.

Partly a product, and partly a cause, of these changes was yet another phenomenon—the emancipated woman. Two years after John Stuart Mill was baulked in his attempt to include female franchise in the second Reform Bill, he published his classic *Subjection of Women*. In England the argument was reinforced by the spectacular agitation of Josephine Butler (wife of a Liverpool schoolmaster), who rocked public opinion by her campaign against the Contagious Diseases Act. At the same time an Act of 1870 gave married women the right to keep their earnings (extended twelve years later to their own property). As the number of congenial female occupations increased, so did the institutions for training them. University College, London, opened its classes to them in 1870, the same year in which women got the Board School vote. By agitating for examinations for women, a higher standard than the Cambridge local was obtained, which was later opened to men as well, with the title of the Higher Local Examination. Those who disapproved of the examination projects joined Miss Emily Davies, and in October 1869 Girton opened its doors to six students at Hitchin. Three years later it moved to Cambridge. In Cambridge itself the women flocked to the lectures of James Stuart, a pioneer of university extension in many directions. By 1879, Oxford had followed suit with two halls of residence for women—Somerville and Lady Margaret Hall. The newer university colleges, needless to say, admitted women freely to their courses.

Private munificence could not, and did not, lubricate all this. The eighty-nine city companies had drawn the limelight upon themselves by their extensive ownership of Irish land. A notion was current that their responsibility was for 'technical education', and one of the sheriffs of the City of London not only categorically said so, but added that they only needed "a little gentle persuasion" to shoulder it. The Radicals followed this cue. In 1876 William James moved for an inquiry, but was informed that the proper mode of redress was through the Charity Commissioners. The Progressive Party took up the cry for the elections to the London School Board in November 1876, and directed the attention of the electorate to the rich relief from high educational rates afforded by the resources of the city companies. A City Guilds Reform Association was also formed.

Though they were quite safe behind the doctrine that most of their resources were private property, the companies began to assist the technical education which the times demanded. The Clothworkers endowed the textile industry with Yorkshire College, Leeds, and also were trying to form a City Guilds Industrial University in London. One of their members, Sir Sidney Waterlow, was sensible to the rapid Continental advances, and had received reports from two commissioners whom they had sent for that purpose. With other companies, a committee was formed that took over the technological examinations which Donnelly had established for the Society of Arts. By 1880 it was incorporated as the City and Guilds of London Institute for the Advancement of Technical Education (27).

By the middle of the 'eighties, change in intellectual climate was even more obvious. The economic depression was so profound that a short-lived Conservative administration appointed a Royal Commission to examine the causes and offer explanations. The Commission reported in 1886, and for the first time it was officially admitted that the industrial techniques of America and Germany were surpassing those of Britain. Voluntary efforts to remedy this state of affairs redoubled. In the large towns, industrialists (like F. T. Mappin, the railway-spring manufacturer at Sheffield) gave generously to the nascent local colleges to enable them to develop technological studies. But in the larger national picture, voluntary effort to enable men to be educated in the proper use of their head and hands was pitifully lacking.

Moulders of responsible opinion were feeling their way towards the imperative necessity of state action in the matter of universal and therefore university education. T. H. Green who, though an Oxford tutor, had been elected in 1874 to the Oxford School Board, and later became the first don to offer himself for election to the city council, taught in his *Principles of Political Obligation* (1886) a new conception of political freedom. This was that it lay in " the power on the part of the citizens to make the most and best of themselves ". With this as his belief, he justified state interference with individual freedom in matters of labour, health, and education. His abiding sense of purpose communicated itself to his pupils at Oxford, for he taught them that the essence of human life lay in the deep, wilful pursuit of an ideal for its own betterment. This will, for Green, was the real basis of the state.

The Beginning of University Grants

The principals of these new university colleges were only too well aware of the slender financial backing on which they operated. Annual subscriptions, though promised for periods of years, could and did fall away; endowments, especially if invested in mortgages on land and buildings, were not substantial. Buildings and running expenses soaked up capital at an alarming rate (28).

William Ramsay of Bristol and W. M. Hicks of Sheffield took the lead. It began when, with Viriamu Jones of Wales, they found themselves on board the SS *Peruvian* homeward bound from a British Association Meeting in Montreal in 1884, and discussed the situation. Jones was lucky —as the three Welsh colleges had been recently given an annual government grant of £4,000. Ramsay and Hicks were so determined to secure a similar aid to the English colleges that they brought it up at the next annual meeting of the principals of university colleges. By April 10th, 1886, they secured the adhesion of Wace (of King's College, London), Tilden (of Birmingham), and Garnett (of Newcastle), and began to collect information from various institutions, and a circular was issued on June 17th asking other colleges to join in their efforts. They were joined by Nottingham, Southampton, and University College, London. Manchester, Liverpool, and Leeds stood aloof, having other plans.

Undeterred, Ramsay and Hicks went ahead with organizing public meetings in their respective cities to enlist public opinion, and the spring of 1887 was marked by a number of them. Concomitantly Ramsay enlisted the support of Benjamin Jowett to stir responsible opinion. Jowett's letter to *The Times* on March 3rd, 1887, so strangely neglected by his most recent biographer, points out that only three of the ten university colleges possessed any considerable endowment "beyond their sites and buildings", the others being "either in debt or insufficiently provided with professors and lecturers". In a long leading article *The Times*, with perceptive insight, remarked that "the University Colleges, during fifteen years, have proved their value; and also, like every other educational institution, they have proved that they cannot live without external help". It endorsed Jowett's estimate that £100,000 a year would "suffice to maintain colleges in all the larger towns". This was reinforced by a question in the House of Commons by A. J. Mundella on March 7th.

But the Victoria University of Manchester (which had already made, on May 25th, 1886, a direct approach to the Chancellor of the Exchequer) sent a large deputation to the Chancellor on March 11th, 1887, pleading their own special case: a selfish action which *The Times* did did not commend, remarking: "We are by no means satisfied that the colleges associated with the Victoria University are entitled to first consideration." Nevertheless, the Victoria University was successful, and within a fortnight the Government promised them an annual grant of £2,000.

The other seven institutions went ahead with their campaign. Public meetings at Bristol (March 2nd), Southampton (March 10th), Sheffield (April 12th), and Birmingham (May 26th), 1887, were reinforced by yet another question in the House by A. J. Mundella (April 19th, 1887) and by a deputation on June 30th. It is interesting that Sir John Lubbock, introducing the deputation, stressed the claims of the colleges not so much on their "services to learning and study" as that "they were calculated to contribute largely to the material prospect of the country". Lubbock pointed out that their "very pressing need" was such that "even the oldest and richest were crippled through lack of funds". Joseph Chamberlain, Sir Lyon Playfair, Sir Bernard Samuelson, Professor Tilden, and A. J. Mundella also spoke. The amount asked for this time was half what *The Times* had suggested three months earlier.

Nothing was done. Hicks and Ramsay restlessly worked to keep up the pressure and enlisted the help of Alfred Milner (the Chancellor's private secretary). They also approached Acland, then secretary of the National Association for the Promotion of Technical Education. Sir John Lubbock, A. J. Mundella, and Sir Henry Roscoe kept up a fire of Parliamentary Questions throughout the following year, 1888. Only after some two years of ceaseless and devoted activity did the Government yield and award an annual grant of £15,000, " the thin end of the wedge ", as Ramsay remarked, " we must . . . keep on trying to increase it ".

To distribute this grant, the Chancellor of the Exchequer set up an advisory committee consisting of Sir John Lubbock, Sir Henry Roscoe, the Rev. J. Percival, the Rev. G. F. Browne, and R. G. C. Mowbray, with H. E. Oakeley as its secretary. The twelve institutions recognized for grant were Owens College, Manchester (£1,800), University College, London (£1,700), King's College, London (£1,700), Liverpool University College (£1,500), Mason College, Birmingham (£1,400), Yorkshire College, Leeds (£1,400), Nottingham University College (£1,400), Bristol University College (£1,200), Durham College of Science (Newcastle-on-Tyne) (£1,200), Firth College, Sheffield (£1,200), and Dundee University College (£500). The Hartley Institution at Southampton was excluded from their list.

Lord Haldane's Work

No major politician devoted more time and energy to the promotion of the unitary (or ' civic ', as he called them) universities than R. B. Haldane. Only in the larger atmosphere of a university could, in his opinion, technical education of the finest kind be obtained. To this end he worked to secure the University of London Act in 1898, and his speech in the House of Commons undoubtedly secured its passage. With Webb, he was one of the founders of the London School of Economics, and later presided over Birkbeck College. It was he who, in 1904, presided over a small committee which recommended the establishment of the University Grants Committee. It was this committee which was to exercise the decisive influence over the development of universities in the twentieth century.

As J. F. Lockwood observed: " In what he knew to be the urgent national interest, from 1889 onwards he put his shoulder to a great wheel, which turned in time so well that, if we look now at the Universities of Bristol, Liverpool, London, Wales, Belfast, and the National University of Ireland (not to mention several others which might be regarded as his posthumous offspring), we can see the marks of his handwork " (29). It is that wheel which, powered by the Treasury, drives the university system in England to this day.

W. H. G. ARMYTAGE.

NOTES

(1) The Apothecaries were forced to abandon their idea of a medical school because of the opposition of the College of Surgeons, B. Hamilton, " The Medical Profession in the Eighteenth Century ", *Economic History Review*, IV (Cambridge,

1951), p. 168. For Charing Cross Hospital and Medical School see *Historical Account* . . . by William Hunter (London, 1914).

(2) A. E. Wheeler, *A Short Account of the University of Leeds* (1924), p. 7. John Marshall (1765–1845), later the father-in-law of William Whewell, the famous Master of Trinity and a pioneer of university reform at Cambridge, was a pioneer of flax spinning by machinery, a supporter of the local mechanics' institute, and a member of the Council of London University. R. V. Taylor, *Biographia Leodiensis* (London, 1865), pp. 411–15.

(3) C. E. Whiting, *The University of Durham*, pp. 119–22; G. Grey-Turner and W. D. Arnison, *The Newcastle-on-Tyne School of Medicine* (Newcastle, 1934).

(4) K. D. Wilkinson, *The History of the Birmingham Medical School* (Birmingham, 1925); Vincent and Hinton, *The University of Birmingham* (Birmingham, 1947), pp. 39–46.

(5) Ramsay Muir, *A Plea for a University of Liverpool* (1901), p. 7; *William Roscoe* (Liverpool, 1906), p. 25.

(6) J. Thompson, *The University of Manchester* (1886), p. 29.

(7) B. Cottle and J. W. Sherborne, *The Life of a University* (Bristol, 1951), p. 4.

(8) Thomas Kelly, *George Birkbeck, Pioneer of Adult Education* (Liverpool, 1957), pp. 46 ff.

(9) W. H. G. Armytage, *Civic Universities* (London, 1955).

(10) D. Bogue and J. Bennett, *History of Dissenters from the Revolution in 1688 to 1808* (London, 1817), IV, p. 308: "Were an institution established in a central part of England, upon a liberal plan, open to all denominations, Christians and Jews, and were the incomes of the professors to arise, like those in Scotland, in a great measure from the students, whom their celebrity would attract it would find sufficient support."

In 1824 Bogue drew up and circulated a plan: meetings were called to discuss it by the Baptists of Hackney under the leadership of their vigorous minister, the Rev. F. A. Cox.

(11) H. Hale Bellot, *University College, London* (1929), ch. 2.

(12) F. J. C. Hearnshaw, *A Centenary History of King's College, London* (1928), pp. 25 ff.

(13) E. A. Hughes, "The Bishops and Reform, 1831–3", *English Historical Review* (1941), LVI, pp. 459–89; C. E. Whiting, *The University of Durham* (London, 1932).

(14) Mortimer R. Proctor, *The English University Novel* (California, 1957). He contests with Henry Cole (who wrote under the pseudonym Felix Summerley) the credit of designing the Christmas card, and claims to have introduced the double acrostic into England.

(15) H. B. Charlton, *Portrait of a University* (Manchester, 1951), p. 54: "It was largely through Roscoe . . . that experimental science became the motive force by which the British idea of a university was revolutionized."

(16) D. L. Burn, "The Genesis of American Engineering Competition, 1850–1870", *Economic History*, II (1931), pp. 292–311; M. Arnold, *Schools and Universities on the Continent* (1868), pp. 276–90; John Scott Russell, *Systematic Technical Education for the English People* (1869), p. 327: "The university . . . is a national institute for the preservation . . . of useful knowledge"; Sir Charles Dilke, *Greater Britain* (1869).

(17) Anna Hurta read a paper in the National High Schools of Denmark to the Social Science Congress in 1872. See *Transactions*, pp. 295–304.

(18) C. E. Whiting, *op. cit.*

(19) A. N. Shimmin, *The University of Leeds* (1954).

(20) H. A. Ormerod is writing a history of the University of Liverpool.

(21) A. W. Chapman, *The Story of a Modern University* (1955).

(22) Vincent and Hinton, *op. cit.*

(23) A. C. Wood, *The History of the University College of Nottingham* (Nottingham, 1953).

(24) W. M. Childs, *Making a University* (London, 1933).

(25) " The University of Exeter ", *Universities Review*, XXVIII (1956), pp. 4–8.

(26) B. Cottle and J. W. Sherborne, *The Life of a University* (Bristol, 1951).

(27) C. T. Millis, *Technical Education, Its Development and Aims* (1925).

(28) Sir W. Tilden, *Sir William Ramsay* (1918), pp. 89–9; A. W. Chapman, *The Story of a Modern University* (1955), pp. 44–67.

(29) J. F. Lockwood, " Haldane and Education ", *Public Administration* (1957), XXXV, p. 234.

CHAPTER FOUR

Tradition and Reform: University College of North Staffordshire

THE founding of the University College of North Staffordshire at Keele resulted from the fusion of two streams. The first, the desire of educationists in the Potteries for a university institution in the area, arose at intervals over the last hundred years or more (1). This local feeling culminated soon after the Second World War in the formation of an Exploratory Committee to investigate ways and means of creating a university college. The committee received strong and effective backing from the City of Stoke-on-Trent, the Staffordshire County Council, and the County Borough of Burton-upon-Trent. The second stream arose partly from growing dissatisfaction in this and other countries with the way in which university education was moving (2), and partly from the need for university expansion which became evident after the war. The *Barlow Report* on scientific manpower published in May 1946 (3) contains the following paragraph:

> Finally we think that, while giving all possible facilities to the existing universities and university colleges to expand themselves, early consideration should be given to the foundation of at least one new university. We recognize that such a foundation must have time to develop and that, taking into account the difficulty of providing accommodation, its contribution to the need for graduates would probably be small for some years after its birth. But there is nothing sacrosanct about the present number of universities in the kingdom and we are attracted by the conception of bringing into existence at least one university which will give to the present generation the opportunity of leaving to posterity a monument of its culture. Moreover, there is some reason to believe that a number of able teachers from the existing universities would welcome the opportunity of re-enacting in the twentieth century the exodus which is said to have led to the foundation of Peterhouse in the thirteenth. We also believe that such a proposal would receive warm support from informed opinion and the general body of the public.

For more than thirty years the Potteries and North Staffordshire have been a most active centre for the university extension movement sponsored by Oxford University, and among the early pioneers in this was the late Lord Lindsay of Birker, who became the Master of Balliol College, Oxford, for more than twenty-five years. The Exploratory Committee soon co-opted him. Lord Lindsay had long been interested in the fundamental principles of education at university level, and he had recently visited a number of enterprising universities and colleges in the United States. On May 14th, 1947, he initiated a debate in the House of Lords on education (4). In his speech Lord Lindsay supported the recommendations of the Barlow Committee and pleaded for the founding of universities of a new type, not just the expansion of existing universities and colleges. He drew attention to the need for the inclusion of science in a general education, and went on to say: "I think that in the past the University of London have done the greatest service in granting their degrees to students of places like Exeter, Hull, Nottingham, Leicester, and Southampton. I am not sure whether this is now the right pattern. I am not sure whether the obligation to work for the degrees of the University of London does not to some extent fetter the initiative and experimenting of the smaller institutions." He referred to the proposal for a university college near Stoke-on-Trent, and said that he hoped that there would be special emphasis on the social studies, including economics. In this speech later on in the same debate, the Lord Chancellor (Viscount Jowitt) said:

> I turn to the question of university colleges and I deal particularly with the North Staffordshire project. I am told that the University Grants Committee have passed a resolution which I will read to your lordships. This is the resolution which they communicated to the sponsors: "That the committee would consider sympathetically an application for financial assistance in respect of a new university college in North Staffordshire, provided that the basis of studies in science and art be adequately broadened. If this scheme is to include the conferment of degrees by the college, the committee will wish to be satisfied that adequate arrangements have been made for sponsorship by a university or universities." If I understand it aright, the practice has been that university colleges in this country have instructed, and their students have taken the examinations, which are set by the University of London. Here is a new experiment—that the North Staffordshire people should have the right of setting their own examinations, if they do so in consultation with and by obtaining the benefit of the advice and experience of some of the older existing universities—I think they are here called sponsoring universities. Might not that be an experiment which is well worth making?

The charter incorporating the new university college was signed by the King in Council on June 30th, 1949. Its provisions include the formation of an Academic Council in addition to the normal governing machinery of Court, Council, and Senate. The constitution of the Academic Council includes two representatives appointed by each of three sponsoring universities—Oxford, Manchester, and Birmingham—together with five representatives of the college, including the principal. In addition, each sponsoring university has a representative on the College Council. The duties of the Academic Council include the approval of (*a*) the curriculum and organization of studies, (*b*) nominations for the appointment of principal and senior staff, (*c*) nominations for the appointment of external examiners. Particularly in its early days the college owed much to the wise advice given by the external members of the Academic Council based on the very wide experience of their universities. The college is thus serving its apprenticeship through sponsorship and not by preparing its students for the degrees of the University of London. As a result of this arrangement the Senate has had great freedom in the organization of courses of studies.

Lord Lindsay was appointed the first principal, and the heads of departments were selected round about February 1950. They immediately began to meet as a Senate during most week-ends, under the guidance of Lord Lindsay, to consider courses, regulations, etc., and the first students entered the college in October of that year. It is a tragedy that Lord Lindsay did not live long enough to see the real fruits of his work; he died in March 1952.

In the following pages an account is given of the way in which the Senate has used the freedom conferred by the charter, and some personal reflections based on experience at Keele since February 1950.

Residence

Through the far-sighted action of the Corporation of Stoke-on-Trent the college has a very fine site, now extending to some 650 acres, about six miles from the centre of the city, and between 600 and 700 feet above sea-level. Originally inhabited by the Knights Templars in the twelfth century, the estate was bought by the Sneyd family at the dissolution of the monasteries, and they erected the first Keele Hall in 1581. The Hall, rebuilt several times, especially in 1860, is now the headquarters of the college. From its windows one can see rolling parkland, the first of six small lakes and the hills of Shropshire. During the war the army had built in the grounds a large number of huts of the type familiar to so many. These were adapted for the residence of students, and some for the temporary residence of members of staff. Without these unlovely but now comparatively comfortable erections it would not have been possible for the college to have started when it did, at a time of great building shortage. The huts have been supplemented by permanent halls of residence as the college has grown, and it is hoped shortly to commence replacing them by more sightly and more permanent buildings, though many students have an affection for the huts because of the friendly 'family' atmosphere within them. A number of other permanent buildings have been erected during the last eight years, such as the first stages of the laboratories and other teaching buildings, and houses for married members of staff. From the beginning the college has had a policy of full residence for both students and staff, and, unless for very exceptional reasons, all students live in college during all the four years of the degree course. Nearly all the permanent staff and their wives and families live within the college grounds. A survey showed that even if this had not been the policy it would have been almost impossible to have housed students in lodgings within a reasonable distance of the college. As far as I know, no other university institution in Great Britain has the same degree of full residence of both student and staff, and the whole of our curriculum is based on such residence.

The Foundation Year

The degree course extends over four years. The first year is special to the college, and we call it the foundation year. The central feature is a course of lectures attended by all students whatever their background. The lectures, eight to ten a week throughout the session, are given mainly by the heads of the various departments, with some help from senior members of the lecturing staff.

The purpose of the foundation year lecture course is to review, discuss, and illustrate the background, heritage, achievements, and problems of Western civilization. As at present constructed, the course begins by enhancing the students' sense of wonder, awe, and beauty by the contemplation of the heavens as seen through the eyes of modern astronomy and physics. Not only the arts student, but the scientist also sees in a new light the faith and methods of the physicist after an outline of the progress from Kepler, Galileo, and Newton to the exciting speculations of modern cosmology. Tracing the steps in the argument from Olbert's question "Why is it dark at night?" to the theory of continuous creation is "an imaginative adventure of the mind" much appreciated by students newly released from the advanced-level syllabus. The geologist follows with an account of the history of the earth during the 3,000,000,000 years or so before the emergence of man, and the geographer describes and discusses climate and other environmental factors. The biologist introduces living things and discusses theories of the origin and evolution of man. By lecture No. 31, students have reached a sufficient state of humility to appreciate the achievement of early civilizations as presented by the classicist, philosopher, theologian, and historian.

The next group of lectures plunges straight into the characteristics and problems of Western society in an industrial age, as seen by historians, geographers, political scientists, members of the education department, and economists. The outlook is that of to-day with sufficient historical background to give perspective and an appreciation of the many problems now facing us. The third group is concerned with the creative achievements of man—language, literature, art, music, architecture, mathematics and science, and technology. There is a section on the study of man himself and his belief by philosophers, psychologists, sociologists, theologian, and biologists. A recent innovation has been the introduction of 'question hours' at the end of each block of lectures.

Even such a course of lectures as this is not by itself a university education. The foundation year students are allotted to mixed discussion groups (arts and science, men and women), each containing seven or eight students and two or three members of staff, who meet for one hour a week to discuss general problems arising from the main lecture course. Properly handled by the member of staff who acts as chairman, these group discussions are found to be of great educational value to students. At first some of them, especially the scientists, do not know what it means to discuss a problem from various points of view, and cannot express themselves clearly, concisely, and convincingly. Further, thus stimulated, students go on discussing in their own time. Students always do, of course, but here there is much common ground between students of different disciplines, because of the foundation year course.

In addition each student attends five classes a week, loosely called 'tutorials', in groups varying from two or three students upwards according to subject. Three classes, taken in successive terms, normally consolidate and extend the subjects taken at advanced level at school (e.g., English, French, and German in the arts; physics, chemistry, and mathematics for some scientists). Two 'sessional' tutorials, taken throughout the foundation year, are normally broadening subjects (such as philosophy and physics for the arts students, history, and economics for the scientist). For some students necessary techniques are kept in practice and developed, such as mathematics for the quantitative sciences, conversation classes in modern languages. There is also provision for special tuition when needed; for example, for a student who studied mainly arts subjects in the sixth form and who may wish to change over to physics or to chemistry.

Each student in the foundation year is allotted a general tutor, who is normally the chairman of the discussion group attended by the student and who gives general guidance during the transition from school to university studies. Examinations are held at the end of the session and, together with tutors' reports, determine whether a student is fitted to proceed to the honours degree studies that follow. About 6 per cent of foundation year students leave the colllege at the end of the year, mainly owing to poor examination results or adverse reports from tutors.

Degree Studies

Towards the end of the foundation year most students choose two 'principal' subjects to be studied throughout the following three years for a joint honours degree, and two 'subsidiary' subjects normally completed during the second year in college. Of these four subjects, at least one must be a science and at least one a non-science subject. Most students naturally choose cognate principal subjects, and one of the subsidiaries often supports the principals. Sometimes, however, not only the subsidiaries but also the principals cross the boundaries in a way hardly possible in other universities in England. Examples of subject combinations are given below:

Principal 1	*Principal 2*	*Subsidiary 1*	*Subsidiary 2*
English	History	Physics	Education
History	Economics	Political institutions	Physics
Geography	Geology	Biology	Education
Mathematics	Physics	Chemistry	Philosophy
Physics	Philosophy	Mathematics	Political institutions
Biology	Geology	Chemistry	Economics
Chemistry	Economics	Physics	Mathematics

As far as possible, by the use of special options within principal courses the two main subjects of a joint honours course are linked. There are also some interesting specially integrated honours courses; for example, (*a*) Social analysis: comprising (1) comparative government systems; (2) public administrations; (3) the theory of political behaviour (given in the department of political institutions); (4) principles of philosophy; (5) moral philosophy; (6) a special subject (department of philosophy); (7) principles of economics; (8) economic development; (9) economic welfare (department of economics), together with, normally, either subsidiary mathematics or subsidiary physics.

(*b*) International relations, in which courses in economics, history, and political institutions are integrated, together with a science subsidiary. Students taking this course are required to show facility with at least one foreign language.

One of the features of the Keele curriculum that has aroused the greatest interest is the broadening subsidiary, such as a science for the non-scientist, arts subjects for the scientist, and social sciences not often studied at school. These courses have been designed specially for the students concerned, which means that some departments offer at least two kinds of subsidiary, one as a 'broadener' and one as a supporter to cognate subjects. For example, there is one mathematics subsidiary for students reading principal biology or subjects in the arts or social sciences which includes a good deal of statistics, and another which is designed mainly for students reading one or more of the physical sciences. In physics, one subsidiary course has been devised particularly for arts and social studies students. The aims and methods of this course, together with those of the corresponding foundation year sessional course, have been described elsewhere (5). The other subsidiary is primarily for students studying principal chemistry, biology or geology. In chemistry, too, there are two subsidiary courses, one for arts and one for science students. In biology there is only one subsidiary, but it is almost as new to scientists as to non-scientists, for its main emphasis is on human and economic biology. In the social studies the content of subsidiary subjects is new to nearly all students, and the emphasis throughout is on principles. Much thought has been given to the teaching of arts subjects to scientists. In English language and literature, for example, the subsidiary course is designed (i) to awaken and stimulate an interest in imaginative literature, (ii) to clarify fundamental principles of interpretation and judgment. In history, the course is designed not only to provide students with an opportunity of learning something of the nature and discipline of historical study but also to introduce them to the political and economic problems of the contemporary world. Sudsidiary philosophy consists of two parts: (i) philosophy of science, (ii) logic.

It may be helpful now to give a list of subjects taught:

Arts (Group A): English language and literature, history, Latin, Greek, French, German, Russian studies (subsidiary only), philosophy, historical theology (subsidiary only).

Social Studies (Group B): economics, political institutions, geography, political and moral philosophy, theory and practice of education, psychology (subsidiary only).

Sciences (Group C): mathematics, physics, chemistry, biology, geology.

There is a subsidiary in moral and political philosophy, but the Group A and Group B philosophies are treated as parts of a single discipline for a principal subject, within which provision is made for special interests on one side or the other.

Students taking a modern language as a principal subject are required to spend a period abroad in the appropriate country.

Biology is taught as one subject, not as zoology plus botany. Thus the principal course emphasises the unity of living organisms rather than their diversity.

It must be emphasized that there are no pass degree courses as such. The final examinations are honours examinations, and external examiners are appointed to help in maintaining standards both in the finals and in subsidiaries. Good performances in both (or all three) principal subjects is required for high honours, and outstanding performances in subsidiaries may move a candidate into the next higher class in borderline cases. The classifications are 1, 2 (i), 2 (ii), 3, and pass.

Diplomas

By taking extra courses within the four years of undergraduate work, students may receive a degree with diploma in education or a degree with diploma in social studies.

Work for the diploma in education takes the place of one of the subsidiary subjects, but is spread over the three years of the degree course proper. This means that the decision to take the course in theory and practice of education must be made at the end of the foundation year and not at the end of the degree course. There are both advantages and disadvantages in this procedure. Some students begin the diploma course but withdraw before the commencement of the final year, having found by experience that teaching is not, after all, their vocation. If these students do well enough in the Part I examinations held at the end of their third year in college, exemption from one subsidiary subject is allowed. Teaching practice is carried out between the beginning of the school year in September and the beginning of the university session in October, and is spread between secondary modern and secondary grammar schools, and sometimes primary and special schools also.

Students preparing for the degree with diploma in social studies take an integrated principal subject course, including moral and political philosophy, political institutions and economics, together with subsidiary psychology and a science subsidiary (often biology). There are approximately six months of practical training after which students are required to write a report.

Research

From the beginning, Keele has subscribed wholeheartedly to the view that research and the advancement of knowledge must be essential activities of the college, for reasons which are well known. Some heads of departments had before appointment to the college small research groups which were transferred to the college. In, for example, chemistry and physics experimental research was carried on in the university from which the professor concerned had come until new research laboratories at Keele were ready. This is only one instance of the friendly and effective help received from existing universities. Graduates from other universities came to the college as research students, and after 1954 they were joined by Keele graduates. The number and quality of books and papers published from Keele compares favourably with the output from other small universities and colleges.

The present charter does not give Keele the power to award higher degrees, but the Senates of Birmingham and Manchester universities generously agreed to admit under certain conditions members of U.C.N.S. working at Keele as candidates for the internal degrees of M.A., M.Sc., and Ph.D. of those universities, and a number of such degrees have been conferred.

Students

Students admitted to the college must normally have complied with entrance requirements common to most universities, such as those laid down by the Northern Universities Joint Matriculation Board. Admission is to the college and not to individual departments, and the selection is by the senior tutor advised by an admissions committee. The basis of selection is performance in G.C.E. examinations and reports from heads of school, supplemented by interviews carried out by members of the admission committee and others co-opted for the purpose. At present about one in ten of the applicants are admitted. A few mature students also are taken, and some of these have been most valuable members of the college.

Students are drawn mainly from the various types of grammar school, but an increasing proportion is coming from public schools. Only about 15 per cent come from the neighbouring counties (Staffordshire, Shropshire, Cheshire), 77 per cent from the rest of England, 3 per cent from Wales, 0·5 per cent from Scotland, and 4·5 per cent from overseas. There is an exchange of a student for one year with Swarthmore and with Reed Colleges, U.S.A.

The first intake had, of course, to create the various student societies. These now flourish in great number. Their meetings are held normally after dinner. Though students largely organize their own team games, athletics of all kinds are stimulated by an active director of physical education assisted by visiting specialists. Members of staff and visitors also help with drama and hobbies such as painting and craftwork. It is hoped shortly to appoint a director of music to organize and train the orchestra, choir, chamber music, and madrigal groups, etc.

Comment

The preceding paragraphs contain an account of how the Senate has used the freedom conferred upon it by the charter. I will now comment on the experience gained during the past eight years and on the present position. While my colleagues would probably agree with most of them, the comments and expressions of opinion are my personal views.

Since admission of students is to the college and not to individual honours schools, no faculty or departmental entrance requirements are superimposed on the general ones. Provided there is sufficient spread at advanced and ordinary level combined, and provided there is evidence of good academic quality, we do not mind what subjects are offered at G.C.E. advanced level, and two subjects at this level will be accepted if the conditions just mentioned are met. This gives considerable freedom to the schools, and if only a sufficient number of universities could adopt similar requirements some of the sixth form problems would be made easier to solve. Because of the special faculty and departmental requirements (*de facto* as well as *de jure*) for entry to many of the special honours schools in civic universities, the choice of subject is effectively made by most boys and girls at the age of 15 or 16 for reasons which may not in the long run be good ones—such as liking or disliking a particular teacher. At Keele, a student does not make his final choice of degree subjects until he has had, in the foundation year, nearly a session's experience of subjects at university level. At the admissions interviews we ask each potential student what degree subject he thinks he will read. Our records show that about 40 per cent take at least one principal subject different from their preliminary choice. Most of these changes are naturally towards subjects seldom, if at all, taught at school (such as philosophy, political institutions, economics, geology), but there are significant numbers of changes from the arts to the sciences, and a few vice-versa. Special attention is given in the foundation year to those intending to change from arts subjects to physics or chemistry. It is not always realized by pupils at school how very different the study of a subject is at university level from study at sixth form level. My experience in three civic universities indicates that an appreciable number of students in the special honours schools chose the wrong subject, and to some extent this is reflected in the larger failure rate (including moves to pass-degree courses) than at Keele, in spite of the absence of pass-degree courses at Keele.

Some confusion has arisen from the description 'general' being applied by some to the Keele degree, for in some universities this adjective is used to describe degrees of pass standard. There is no doubt that for many students it is more difficult to obtain high honours in a joint honours course than in a single subject one. The joint course stretches the mind in many directions and is by no means a superficial treatment of descriptive bits. My experience is that Keele graduates do at least as well in physics research as graduates of comparable ability from the specialized honours schools of physics, though on graduation they may not have reached the frontiers of the subject in as many places. After all, in his four years at Keele a student taking principal physics spends about as much time on the subject as a student at Cambridge reading Part I of the natural sciences tripos followed by Part II physics, and he will have an additional subject to approximately the same standard. Keele graduates are now on the staffs of several universities. Employers in industry, too, have expressed themselves well satisfied with science graduates, and they are also specially interested in our arts graduates. As one of them remarked: "The barrier which exists between most arts graduates and any science has been broken down at Keele, so the problems of industry can be appreciated much more quickly."

Employers also remark on how easy it is to interview our students, who talk freely and make plain their qualities—both good and bad! Visitors, including members of the University Grants Committee, almost invariably remark on the friendliness, enthusiasm, and loyalty to the college of the majority of students. It is difficult to give precise reasons for this attitude, for a number of factors may contribute: full residence, a relatively small number of students, the close contact between students and staff, the nature of the curriculum (particularly the foundation year), and the persistence of a pioneering spirit. The students are our best ambassadors.

Ambassadors are still needed, for even now there is some misunderstanding and distrust in a proportion of schools, education authorities, and the public at large, albeit a decreasing proportion. A few schools think we prepare students for external London degrees. We still receive applications from candidates wishing to study engineering and other subjects not taught in the college. There is the misunderstanding about general degrees already mentioned. Some heads and careers masters have apparently insufficient time to read our prospectus and so be in a position to advise their boys. To help schools we have for some years now invited heads of schools to confer with us for a day or so at Easter, and we have been most encouraged by the response and by the friendly comment and constructive criticism received. Through these conferences we have also gained a better understanding of the problems facing schools. On the whole our curriculum has been welcomed, especially the foundation year, the absence of special entrance requirements, full residence, and the tutorial system. There is now in schools a much better understanding of the kind of boy or girl likely to profit by the course at Keele. For some the joint honours course is too tough, and they are happier in a single subject honours school. For some students the foundation year would be a frustrating thicket between two straight and narrow paths of special studies in the sixth form and in the honours school. The admissions committee is on the look-out for such students, and when it finds one, however good, with little hope of redemption, encourages him to go to another university.

For most students, however, the foundation year is a revelation. For them the overworked cliché of opening windows—and doors—into new worlds is truly applicable. I have already remarked on the number who take up subjects different from those originally intended. Together with the broadening subsidiaries and with discussions with other students the course is found to have lasting effects. Arts students do go on reading science and science students do have a continuing interest in poetry, history, etc. (6).

A number of organizations have been discussing ways and means of reducing the intense specialization in the sixth forms of schools, and of giving arts pupils a better understanding of science (e.g. the Headmasters' Conference, the Science Masters' Association, the Central Advisory Council on Education). Some schools are already doing excellent work in this direction. Only the best teachers are good enough for such work and there are not enough of them to go round, but when a large number of schools are able to extend their activities in this way, will our foundation year still be necessary? My own view is that it will, though not quite in its present form. After all, many of the subjects discussed in it need a maturity of mind and a certain breadth of experience which the majority of sixth forms have not got, though they are not much younger. It has been suggested from time to time that our foundation year would be better moved to the final year (with a change in title!), to be taken after the final subject examination. Students would certainly be much more mature, but the disadvantages are so real that the proposal has never been seriously considered.

We are convinced that the four-year course has many advantages over the three-year course more normal in English universities. The extra year naturally has financial implication (except for students taking the degree with diploma in education). About 90 per cent of our students receive grants from local authorities or the state. All but a few local authorities award four-year grants to approved students coming to Keele who are not intending teachers. The few who do not appear not to understand what we are about—for in effect they say that an equivalent degree can be obtained at well-established universities in three years, so why go to Keele? Local authorities have naturally to look very carefully at how their grants are distributed, but it seems unjust to penalize boys and girls in just a few areas. We have held occasional conferences with local education officers to increase our mutual understanding, and here again we have received much help from our visitors. It would be very difficult at present for other universities to extend their three to four year courses, but there is much discussion as to what best can be done within the three years (see, for example, 7).

Since 1950 our courses and methods have been under continual review. A major change has been the reduction of the number of subsidiaries from three to two. Experience showed that with three, students' studies were apt to become too disjointed, and the achievement of real depth in principal subjects too difficult. A consequential change has been the strengthening of the broadening 'sessional tutorials' in the foundation year. The foundation year course as a whole has gradually been hammered into a slightly different shape, and I think that this process might well go somewhat further in the direction of stretching to a greater extent the more able students.

Progress with the erection of permanent buildings has been disappointing in several respects, largely due to circumstances outside our control. Our first permanent buildings were erected during the very difficult period 1950–52, when licences were necessary and when the range of building materials was much restricted. It was partly for this reason that only the 'back premises' of the laboratory buildings were erected then, leaving until later the frontage sections. It was hoped that these would have been substantially completed by now, but their erection is only now to be restarted. The necessity of erecting buildings in small parts or 'stages', the severe restriction on materials and the general delay, especially in the erection of a library building, have in the long run been expensive in both time and money, and there is still a danger that we shall be forced to leave to posterity some buildings that will not be at all the kind of monument to our culture we would desire to have. Other buildings have been very successful as well as economical. It is our earnest desire that we shall be able to match the great beauty of our surroundings by buildings and approaches which will not just be utilitarian and cheap.

We have been most fortunate in our staff. Campus life has not spoiled them—or their wives and children—as some friendly critics said it might. The great majority are intensely interested in the college, its aims, its students, its creative work, and its future. Living together has also meant working together, and I am very conscious of having learned much from my colleagues. A number of the lecturers have gone on to Chairs and more senior posts in other universities, and in the majority of cases have been replaced by men and women in sympathy with all that the college stands for. That the college is making some impact on the world of education and scholarship is due to successive principals (Lord Lindsay of Birker, Sir John Lennard-Jones, F.R.S., and now Sir George Barnes), staff (including administrative staff), research workers and students, and I am grateful for the opportunity of trying out ideas and of improving my own education with their friendly help.

F. A. VICK.

REFERENCES

1. W. H. G. Armytage, " Civic Universities and Social Re-adjustment 1944–54 ", *Univ. Rev.* (Feb. 1954); *Civic Universities* (Benn, 1955), pp. 168, 291.

2. J. Maritain, *Education at the Cross Roads* (1943); Ortega y Gasset, *Mission of the University* (Nostrand, 1944); Sir Walter Moberly, *The Crisis in the University* (S.C.M., 1949).

3. *Barlow Report*, " Scientific Man-power ", Cmd. 6824 (May 1946).

4. *Hansard* (Lords) (Vol. 147, May 14th, 1947).

5. F. A. Vick, " Science for the Non-scientist ", *Univ. Quarterly* (Vol. 11, May 1957), p. 245.

6. W. A. C. Stewart, " University Education in Breadth and Depth ", *The Listener* (Dec. 6th, 1956).

7. *Cambridge University Reporter* (19th June, 1957), p. 1483; J. A. Ratcliffe, " Science as Part of a General Education ", *The New Scientist* (Vol. 2, No. 33, July 4th, 1957), p. 9.

CHAPTER FIVE

The Development of Universities in Australia

THE Prime Minister of Australia, Mr. R. G. Menzies, when commenting in the Federal Parliament in November 1957 on the report of a recent committee of investigation, and proposing measures which would substantially increase the Federal Government's financial grant to the Australian universities, said:

> In my own undergraduate days, students were either scholarship holders, at a time when scholarships were few and difficult to win, or students maintained by relatively poor parents prepared to make great sacrifices for their children, or (in probably a minority of cases) students whose parents could readily afford to sustain them through their courses of training.
>
> I can well remember a wry smile on hearing a Member of Parliament describe the Melbourne University of my day as a "bear garden of the idle rich". Old conceptions die hard. It is not yet adequately understood that a university education is not the perquisite of a privileged few. It is not to be thought of merely in terms of the individual student. It has become demonstrably clear that a complex and highly industrialized modern society has claims upon the universities which must be met, and has great responsibilities for seeing that those claims can be met.
>
> The social, scientific, economic, and industrial complexities of Australia to-day are largely beyond the imagination of forty years ago. Great skill achieved after high training is no longer to be regarded as something to be admired in a few. We must, on a broad basis, become a more and more educated democracy if we are to raise our spiritual, intellectual, and material living standards. Viewed in this way our universities are to be regarded not as a home of privilege for a few but as something essential to the lives of millions of people who may never enter their doors.
>
> This new charter for the universities should serve to open many doors and to give opportunity and advantage to many students. They will, I am sure, not forget that under all the circumstances I have described, the community is accepting heavy burdens in order that, through the training of university graduates, the community may be served.

The above words embody a view of university functions which has long been tacitly accepted and acted upon in Australian political circles, but never, as yet, completely endorsed by members of the university staffs. The emphasis in the Prime Minister's statement, the political view of the university's function, is upon the social-service function of a university. Its implication is that the work of the university is to be evaluated mainly by the extent to which it subserves the interests of the society of which it is an institution.

Political View of the University

The Vice-Chancellor of the University of New South Wales, formerly called the N.S.W. University of Technology, put the view even more clearly when, at a convention in 1954, he said:

> I believe universities exist only to serve the community. . . . One must take into account the needs and problems of the community which the university is going to serve. . . . The expense of operating universities to-day is so great that there is no other practicable source of finance than the Government, though donations from industry and private donors will continue to be valuable for special purposes. It is clearly the duty of the Government to serve what it sees to be the needs of the community and to persuade its universities to do what that policy requires. It is the duty of the universities as free and independent agencies to assist the Government in this task, and in their capacity as experts in university education to persuade the Government of the best ways of carrying out this policy. There is no truer saying than " He who pays the piper calls the tune ", and if the Government has to provide university finance, the Government will expect some say in how that finance is used.

This 'political' view of a university is no novelty in Australian thinking. Sir Charles Hotham, a hundred years before, had, in language appropriate to his day, voiced somewhat the same sentiments when he laid the foundation-stone of the University of Melbourne in 1854. Then, he had looked to the German universities for inspiration; now, the advocates of this opinion draw more upon the experience and activities of the American state universities.

In two ways Australian universities, along with many overseas, have long given more than a little support to this view. From early in their history they have placed a heavy emphasis on their professional faculties, cultivating the old ones and establishing the new ones which best accorded with the requirements of a developing society. In the second place, more recently, and largely through the stimulus of two world wars, their staffs have been drawn into research and into community service which could be seen to be of value to the community, and which the governments of the day, and commercial, industrial, and agricultural interests, were prepared to encourage. Indeed, in the light of increasing dependence upon the taxpayer for their maintenance in a rapidly expanding population and economy, these tendencies would be difficult to resist in practice; and their continued practice has developed, for many of the universities' staff, an imperceptible and inevitable acceptance in theory of the responsibility of the university for the rendering of appropriate social service.

Tables I and II show the present student population and the growing dependence of the universities upon government financial aid.

TABLE I

AUSTRALIAN UNIVERSITIES AND ENROLMENTS

University	*Date of Foundation*	*Enrolment 1957*
University of Sydney	1850	8,318
University of Melbourne	1853	7,908
University of Adelaide	1874	4,317
University of Tasmania	1890	1,004
University of Queensland	1909	5,709
University of Western Australia	1911	2,356
Canberra University College	1930	396
University of New England	1938 (*Univ. Coll.*) 1954	1,149
Australian National University	1946	67
University of New South Wales (including Newcastle University College, 1951)	1949	5,041

TABLE II

AUSTRALIAN UNIVERSITIES AND SOURCES OF INCOME, PERCENTAGE DISTRIBUTION

	1935	*1950*	*1956*
State Governments	36	68	50 } 79
Commonwealth Government	—		29
Fees	34	23	16
Endowments and other sources	30	9	5

From Table II it may be noted that in 1935 the universities' income was divided approximately evenly between the three sources, one-third from government, one-third from fees, and one-third from endowments, and so on; by 1956, four-fifths of the income was derived from government sources.

Contributing to the steepness of this increase has been the recent foundation of several new universities which have had to lean very heavily on government support. These institutions have all been within the geographic boundaries of New South Wales, either in New South Wales itself or in the Australian Capital Territory. The pattern of universities in this area reveals something of the diversity of structure which may be found even where there may be a common source of financial assistance and, perhaps, common agreement on the aims and functions of university work.

Diversity of University Types

The oldest of the universities in this area is the University of Sydney. In general features and activities it is very similar to a Scottish or, even more, to an English redbrick university. There are a number of significant differences which will be examined later; these it shares in common with the universities in each of the capital cities of the other states. In general, however, its non-residential character, its emphasis upon professional schools, the types of students it receives, the duties and activities of its staff make it an institution not readily distinguishable from an English provincial university.

The University of New South Wales, located also in Sydney, was designed originally in 1949 as the University of Technology for the special purpose of providing "facilities for higher specialized instruction and advanced training in the various branches of technology and science and in their application to industry and commerce". Its official handbook explained its particular function as follows: "In a traditional university the scientist is concerned with the original contributions to principles and conceptions in essentials and pure research; in the technical university the technologist is concerned with the utilization of scientific knowledge and experience for the solution of immediate problems." This foundation was a new departure in Australian university practice; it was an attempt to do for Australia the kind of thing that the California or the Massachusetts Institutes of Technology have been doing in the United States of America. During its brief history, however, it has developed a second feature of importance. Through the technical colleges in a number of centres spread throughout the state, it has developed courses and steadily built up flourishing branches. In this way it is gradually becoming a university for all New South Wales. At the same time it has expanded beyond its original technological function, recently adding a Faculty of Medicine and a Faculty of Arts, thus tending to revert rather more to the usual university pattern of the English provincial and the state universities elsewhere in Australia.

In the northern part of the state a third university exists, the University of New England. It, too, has two distinct features. It is the only university in Australia which has the majority of its full-time students in residence. Whereas, over all the universities, only 15 per cent of full-time students are to be found in university residences or colleges, at the University of New England the figure is 83 per cent. The fundamental reason lying behind this difference is the fact that it is the only university in Australia established outside a capital city or industrial area. As Australia's only rural university it has been led to emphasize a second distinctive characteristic, to make a special feature of work with external students and in the field of university extension. More than half its enrolment consists of external students working with the New England staff by correspondence for arts and science degrees. It is responsible for all the work of this kind that is done within the state, and entered into an interesting arrangement whereby students of the Newcastle University College, a branch of the University of New South Wales, prior to the establishment of an arts degree there, had courses in arts taught to them by Newcastle staff following the New England syllabuses so that they might eventually take the New England examinations and have the degree of that university conferred on them.

In the Australian Capital Territory the Canberra University College has been in existence for more than a quarter of a century. With its own full-time staff it operates solely at the undergraduate level and prepares students to take the examinations and degrees in arts and social sciences of the University of Melbourne. In the same city, the Australian National University was established immediately after World War II. This university, attended as yet by extremely small numbers, is devoted entirely to research and graduate teaching, in the manner of the original Johns Hopkins University, in a limited number of fields organized into four Research Schools, those of Physical Sciences, Medical Research, Pacific Studies, and Social Sciences.

Does this diversity of organization imply conflict of opinion in the Australian community on the matter of university aims and functions? Undoubtedly it does.

There would be fairly general agreement that research and teaching are two important university functions. But is it important that all university departments and staff should be occupied with both? Promotion has, in the past, normally been determined largely by research production and publication; the good teacher who has not published much has generally been thought to be a little lacking in scholarship and has therefore not been able to reach the higher eminences. What, then, should be the nature of the research which thus hall-marks the university scholar? Opinion on this in Australia is not clear. The distinction which is often made between pure and applied research has usually been found to be unreal and impossible to sustain. There is a similar difficulty in deciding between immediate and long-term projects. Often the immediate turns out to have longer-lasting effects than the long-term research, and to be the more valuable. The question is pertinently asked: valuable for what?

Subject versus *Society*

It is on this matter that academic opinion has long been divided in Australia.

Essentially it is a division between loyalty to a 'subject' or loyalty to the community. It illustrates the basic conflict that has always been found in Australian thinking about university education, a rhythmic Yin and Yang of academic discourse. To seek for truth, to push back the frontiers of knowledge, to obtain further insight into the facts and relationships of a particular discipline that one professes, this has been a tradition grafted into the thinking of Australian academics from their long association with English universities and, in particular, from their long-standing tendency to look to Oxford or Cambridge to provide models for thought and behaviour. It is the advancement of learning, not the advancement of a profession or a social activity or a community interest, that is the essential function of university work. This is the value which is peculiarly that of the university; in so far as it is regarded as a social instrumentality it puts itself under values which are not its own. One advocate of this view has recently said, " It is not the ABC of a calling which is important; it is the ABC of a subject. It is only from the point of view of the subject, and not the calling, that any real knowledge of, say, medicine, can be gained." It would be true to say that the university should assume the intellectual leadership of the community, but if it is a true leadership, it must be on the university's own terms and in the fields in which it has itself chosen to be interested.

On the other hand, those whose views tend to emphasize the university's responsibility to the community have, generally, two lines of argument. First, it is suggested, on purely utilitarian grounds, that a university—like a primary or secondary school—is an instrumentality established by society and financed by society to further its educational needs. This is the 'political' view referred to earlier. The university takes its place along with the other educational institutions of the state, and is, in essence, no different from them though its programmes and its methods may receive different emphases. What, therefore, the community needs in the way of tertiary education it is the responsibility of the university to supply if it can most readily and economically be provided by this tertiary institution. Secondly, it is argued, that the university is concerned with the education of human beings and the investigation of matters in which human beings are interested. If our education and our investigation are worth anything, it is precisely because they illuminate our understanding of our present existence. This is not only the justification for our work, it is also the source of its vitality. In so far as university work is in genuine touch with the culture of present-day society, in that degree is it also vital, living, and valuable. Only in this manner is it able to preserve itself as the home of ideas and maintain its reputation for intellectual initiative.

For many Australian academics these two viewpoints are not necessarily incompatible. A 'subject' is not necessarily something *sui generis* which has evolved its own discipline and pursues its own traditional path. It may be regarded, on the contrary, as a logical arrangement of some constellation of interests which may arise at any time in human history from the problems and issues which appear to be of importance in any given society. To seek out these issues and interests and to organize them and to apply one's intellectual resources to their clarification and development is a quite genuine way of developing a 'subject'. Many of the fields of traditional university work have, historically, owed their origin and progress to this process. This is true more particularly of the subjects of teaching and research that have been incorporated into courses of professional training. It is a viewpoint, therefore, that can be urged the more cogently in Australian circles.

Professional Training

One of the striking features of Australian university programmes, not of course unique to this country, is the extent to which they are designed to train students to enter various professions.

As is the case with most English and Scottish universities, students leaving school enter immediately, in their first year, upon distinct courses in separate schools designed to graduate them as future doctors, lawyers, engineers, and so on. There is no general course of education common to all university students, nor any pre-professional work undertaken which is not directly related to a professional specialty. Even students in the Faculty of Arts are, for the most part, vocationally oriented, since teacher trainees—receiving free tuition under government subsidy—predominate there.

This is a fairly typical pattern for English universities, and those which follow their tradition in countries such as Australia and New Zealand. It contrasts markedly with the practice of the United States. Students in Australia enter universities, on an average, at the age of 17 or 18, take a specialized professional course, and expect to complete their work at the end of three or four years; in the U.S.A., on the other hand, students, except in engineering, spend between five to eight years at tertiary institutions before completing their professional training. The difference in time taken is accounted for by their attendance at the uniquely American institution, the college. This work, done either in a separate institution or within the university which offers professional training, provides an opportunity for an unspecialized general education at a reasonably high level of sophistication for all professional men. Nothing similar has yet been attempted in Australia. The desirability, however, of broadening the base of professional education, and bridging the gaps between specialized programmes, has long been canvassed. Thus the possibility of introducing a one- or two-year junior college between secondary school and university has received increasing attention in recent years, but no attempt has been made to put it into operation. One university, over the past five years, has run a series of public lectures, given by a variety of speakers each year, open to all students, on topics such as 'The Mind of Man' and 'The Intellectual Development of Modern Civilization'. Another, the University of New South Wales, has incorporated compulsory courses in the humanities into all its technological degree programmes. None of these attempts, however, grapples fundamentally with the problem at the heart of all discussions on general education. This is a double-sided problem, of communication, and of general social understanding: how to establish a realm of common discourse between divergent specialties, and how to provide a fund of basic knowledge and understanding of all that most concerns an intelligent citizen of the modern world. To add to specialized professional programmes still more specialties in English or history or biology or other humanities or sciences contributes very little to the solution of these problems. Nothing short of a composite course using every appropriate discipline and designed with these problems in mind will answer the case. The correlation of music and gymnastics may have answered for the Athenians of the fifth century, that of the rhetorical schools for Imperial Rome, and the philosophy, classics, and mathematics curriculum for Victorian England, but they will not do for the mid-twentieth century. Each age has need to make its own synthesis, and the twentieth century has not yet found its answer. It is a task worthy of the attention of the modern university mind.

Portus, writing, in 1938, one of the best and most entertaining analyses of Australian universities, regarded it as a task not merely worthy and challenging but one that was also both necessary and feasible. "And how shall we answer his [Whitehead's] charge that the increasing departmentalization of universities has trivialized the intellect of professors? . . . We look into the microscope but never see the microcosm. . . . I should like to see a composite course which would be compulsory on every student before graduation in any faculty . . . the aim would be to lead these young doctors and teachers and engineers and lawyers and scientists to an intelligent interest and understanding of the world they were going out to serve."

Over the past twenty years, since these words were written, nothing has been done to implement Portus's ideas. Departmentalization has enormously increased within each faculty, new specialist degrees have arisen, and the seamless coat of learning has been rent and tattered to such an extent that it appears almost past mending. A few patches have been attempted, in the form of optional, and sometimes compulsory, arts courses for scientists and *vice versa*, until it has become obvious that the time for patching is long past. Some concerted and thorough-going attempt must be made to re-weave the general fabric, re-design the pattern, display it in its modern colour, and merchandise effectively the reintegrated product to the entire student clientele. In Australia there is little hope that the older universities will feel inclined to attempt this task; fortunately there are a number of recent foundations which show a refreshing desire to experiment. Perhaps one of these, or perhaps the projected Monash University soon to be established as a second university in Melbourne, will take up the challenge.

Students

An important consideration which makes an effective programme of general education the more imperative in Australian universities is the lack of any Sixth Form preparation in Australian schools similar to that provided in English secondary schools. In the absence of any work comparable either to the English Sixth Form or the American college, the Australian student who normally goes straight into a professional programme has, over-all, a more highly specialized and departmentalized education than most of his contemporaries overseas.

Several other features further differentiate the Australian university student.

The proportion of part-time students, especially in the faculties of arts, economics, commerce, and law, is very high. Many people who are already in employment seek the opportunity to study for a university degree part-time through attendance at evening courses. In some departments these constitute the majority of the students. Generally speaking, a business-like and utilitarian attitude is more pronounced among these students than among the full-time day students. For many, a degree is a qualification rather than an education. A number of university teachers, however, have found some of their most mature and best students among the evening groups. This is particularly true in the field of education, where most of the part-time students are practising teachers whose special interest and experience are of considerable value and help in their understanding of university courses in the discipline.

Associated with the heavy incidence of part-time work in Australian universities is the preponderance of students doing pass rather than honours courses. In English universities, approximately 70 per cent of students are enrolled for honours work, in Australia the figure is much nearer 10 per cent. In the more professional courses, honours degrees are awarded on the work done for the ordinary degree; in the Faculties of Arts and Science, the usual practice in Australian universities is to require a fourth year beyond the three-year pass degree for a small number of students who have been selected for honours work, usually fairly early in their university career. The spectacular decline in numbers of students to those eventually presenting honours work is illustrated from the following figures for the University of Sydney in 1956.

TABLE III

Numbers of Students in Selected Subjects in Successive Years, University of Sydney

	History	*Psychology*	*Physics*	*Zoology*
I	768	618	290	133
II	332	131	20	33
III	119	80	8	7
IV (Honours)	11	6	2	0

This paucity of honours students is reflected in the smallness of the numbers presenting themselves for higher degrees. Whereas, in the English universities, in 1955, 15 per cent of all the degrees awarded were higher degrees, in Australia the proportion was somewhere in the region of 4 per cent. Able and ambitious students who wish to further their academic work have usually proceeded overseas for higher degree work in the universities of their choice in the United Kingdom or America. Up till the present time it can be said that Australian universities have had only the most meagre and embryonic graduate departments. Typically, they have been undergraduate establishments concentrating for the most part on pass students.

Two interesting and somewhat anomalous facts further complicate this picture.

Despite the low numbers of honours students, it could not be said that the population of Australian universities is of a middling and intellectually indifferent character. On the contrary, students entering these institutions are highly selected. Of all the pupils who in any one year enter a secondary school, only some 8 per cent can be expected to complete the full course, and only half of these to enter the first year of a university course. Where, in some states, selective high schools have been set up to cater for the intellectually more able pupils, still only some 6 or 7 per cent will proceed to university work. The Australian universities, as Dr. Conant has pointed out, have a low drawing power, but the students from whom they draw have followed highly academic secondary school courses, and have been among the most successful of the students in those schools.

It is rather surprising, then, to find that not only do they tend to prefer to take pass rather than honours courses, but that even in those pass courses they do not succeed very well. "One of the most disturbing aspects of university education in Australia is the high failure-rate. . . . Such a high failure rate is a national extravagance which can ill be afforded." This was the opinion expressed by a recent committee of investigation (*vide* below). Of all students entering first-year courses, only 60 per cent pass at their first attempt, and only 35 per cent pass through to their degree without a failure. Eventually 55 to 60 per cent graduate. This contrasts markedly with the figure of 80 to 85 per cent of entrants who succeed in graduating from the universities of the United Kingdom. This extraordinary degree of wastage has caused much heart-searching in recent years among the staffs of Australian universities, the more so as the vast majority of them are men who have had experience of working in English or Scottish universities. Of the professoriate some 40 per cent, at the present time, have migrated from the United Kingdom; and the remainder, mostly Australian scholars, have, with few exceptions, taken higher degrees or spent some time in research there.

What, then, lies behind this excessive failure-rate among students?

Those who have investigated and discussed the problem are not all agreed either upon the causes of the phenomenon or on the relative weight to be assigned to the various causes. There is general agreement, however, that two important contributing factors are, first, a rather adverse staff–student ratio, when taken in comparison with that in English universities, and, secondly, overcrowding of students associated with lack of equipment and inadequate facilities for staff and student work.

Murray Committee

To investigate ways of circumventing difficulties such as these, and to assess the present condition of Australian universities, a special Committee on Australian Universities was set up by the Prime Minister in 1957. Under the direction of Sir Keith Murray, chairman of the University Grants Committee of the United Kingdom, it consisted of two English university administrators, and three Australians.

Its terms of reference were to inquire into:

(1) The role of the university in the Australian community;
(2) the extension and co-ordination of university facilities;
(3) technological education at university level; and

(4) the financial needs of universities and appropriate means of providing for these needs.

Over a period of three months it visited every Australian university, and produced a report which has been described as a 'new deal' for the universities of Australia.

On the question of staff–student ratios, the committee pointed out that in the well-established institutions the ratio lay between 1 : 9 and 1 : 12·6, and that the comparable figure for Great Britain was 1 : 7. It would, therefore, require a staff increase of about 60 per cent to bring them up to the level of Great Britain.

Looming over the whole situation, however, in such a way as to cause a vast exacerbation of the existing position, was an expected increase in university enrolments, in the immediate future, of rather formidable proportions. Student numbers in all universities in 1957 amounted to 36,265. On a reasonably conservative estimate this number would almost double itself in the space of the next eight years, to reach, by 1965, a total of 70,785. Within that figure the enrolment at the University of Sydney would amount to 17,000, at Melbourne 14,400, and at Queensland 12,200. "The magnitude of this increase," wrote the committee, "and of the problems with which the universities will be expected to deal, have not in our opinion yet been fully appreciated either inside or outside the universities."

To meet this critical position the committee recommended principally two things:

(1) The establishment of a new university in Melbourne, the extension of the University of New South Wales from a restricted technological institution into a full university with all major faculties, a considerable expansion of facilities within the other existing universities; and

(2) much greater responsibility on the part of the Federal Government for providing financial assistance for both capital and running expenses of all universities. This was to take the form of a special emergency grant to be paid over the period of the next three years, of a building grant to be shared equally with the state Governments, and of an increased and continuing annual subvention contingent on an increased vote from the state Governments.

To assess the needs of the universities, to advise the Federal Government on their financial requirements, and to help the universities develop rationally and coherently, the establishment of an Australian Universities Grants Committee was suggested, which would consist of a full-time chairman, and seven part-time members—two from the professions or industry and five from the universities.

With commendable promptness the Federal Government assumed the responsibilities recommended to it by the Murray Committee, and the state Governments followed suit.

This has resulted in a considerable clearing of the Australian academic air. The Australian universities are now reasonably assured concerning the limits within which they can proceed during the next few years.

It is a picture of a university world bursting at the seams; but with a reasonable hope that the new dress in making will fairly adequately, though not over-generously, cover its requirements. It still remains true, however, that, although financial policy has been determined, academic policy is still far from clear.

The idea of an Australian university is still in the process of formation. It is certain that it will remain, for many years to come, an institution under heavy financial obligation to state and Federal Governments and that it will continue to regard the training of an adequate supply of graduates for the various professions which the nation needs as one of its most vital functions. What is the essential nature of this training? What other functions should the university perform? Should it devote more of its resources to the cultivation of high-quality minds, and graduate research students? What is the right balance between generalization and specialization? How far should the needs of society guide the selection of courses and research projects? These are unresolved questions which continue to perplex academics the world over. Perhaps they are a little more troublesome to Australian minds because in this country there has been no settled academic tradition. The English university heritage has been crossed with Scottish strains and fed from time to time on the pastures of American pragmatism, but no typical strain has yet emerged. Perhaps in the newer universities now appearing on the Australian scene the experience of the past century may be gathered together, consolidated, and reconstructed into an acceptable and characteristic Australian idea of a university.

W. F. CONNELL.

CHAPTER SIX

The Historical Background to Higher Education in the United States

HIGHER, or post- secondary, education is given in the United States in a large number of institutions throughout the country, varying in size, financial conditions, and methods of control. Variability among these institutions is greater than among the large number of young men and women enrolled in them, differing in abilities, interests, provenance, and destination. Nor is there any well-defined terminology which identifies them as clearly as in countries outside the United States. The institutions comprise public and private universities, which generally include undergraduate and graduate divisions as well as professional schools; there are liberal arts colleges, generally private, which offer the usual undergraduate courses but which are beginning to provide graduate work at least up to a master's degree; there are teachers colleges, intended for the professional preparation of teachers, but which are gradually assuming the name of 'state colleges' in order to expand their functions; and finally there is a growing number of junior colleges, which are gradually coming to be referred to as 'community' colleges and which offer two-year terminal (generally vocational) courses or courses which can be continued in the senior or last two years of the four-year liberal arts college. There are, in addition, independent professional, theological, and technological institutions not associated with universities.

In the words of Lord Haldane, in these institutions "the soul of a people mirrors itself", for they represent every aspect of the varied interests of the American people. The earliest colleges of the country were founded to preserve the religious heritage of the people in the different colonies, and their example was followed, as the people moved westwards, by the founding of a large number of denominational or, as they are called to-day, church-related colleges. From the 1830's on, a number of separate women's colleges were established and the practice of admitting women to institutions intended originally for men was inaugurated and laid the basis for co-education in higher education. As the states began to organize themselves they included plans to establish universities of their own, even before 1800, partly under the influence of French practice and partly stimulated by Jefferson's founding of the University of Virginia. The plans were carried out in most states in the first half of the nineteenth century and were supplemented or enriched by the creation in each state of land-grant colleges, funds for which were provided under the Morrill Act of 1862 and expanded under subsequent Acts of Congress. Graduate schools as constituent parts of universities began to take shape in the 1870's (Yale had already conferred the Ph.D. degree in 1861) and to be definitely organized after the founding of the Johns Hopkins University in 1876 through the vision of its first president, Daniel Coit Gilman. To this list should be added a not inconsiderable number of municipal colleges and a large number of privately endowed liberal arts colleges which are independent of control by religious or public bodies.

The American Attitude to Higher Education

To the non-American such a picture is confusing in the light of the traditional concept of higher education. The situation can best be understood, however, when it is recognized that American higher education is made up of a strand in which the tradition of scholarship and research is interwoven with a readiness to adjust education to the demands of the students and of the society in which they live. Such a development is inevitable as the numbers of students increase, and in an era of rapid cultural changes. This was manifested in British universities after both world wars, with this difference, that the expansion of courses was based on a recognizable scholarly foundation, while in the United States the tendency seems to have been to meet and create demands without clear standards of admission to higher-education institutions. The consequence has been that there are found practices and courses of the kind that Flexner could hold up to ridicule but which are on the whole aberrations from the norm.

More characteristic of higher education in the United States is the principle that public institutions must serve the public, and even private institutions tend to regard themselves as performing services to the public. One can put this down to a somewhat literal interpretation of A. N. Whitehead's remark that "celibacy does not suit a university". The American point of view was stated by General Eisenhower in his inaugural address as President of Columbia University: "The American university does not operate in an unreal world of its own, concerned solely with abstract problems, secluded from the worrisome problems of work-a-day living, insulated against contact with those other institutions which constitute our national structure." To this statement may be added another from the *Report on Higher Education for American Democracy*, prepared by a commission appointed by President Truman. Discussing the social role of education, the commission stated that "education will . . . achieve its ends more successfully if its programs and policies grow out of and are relevant to the characteristics and needs of contemporary society. Effective democratic education will deal directly with current problems. It is essential that education come decisively to grips with the world of mankind."

The double strand of tradition and practicality has a long history which is sometimes overlooked. It represents an attempt to blend the idealism of Plato with the practical education of the sophists, but in contrast to other countries, which provide for the two ends in different and separate institutions, the American offers both in the same institution on the analogy of the department store. Nor is this analogy far-fetched, for the idea that the customer must find what he wants and is always right was in fact the basis on which President Charles W. Eliot of Harvard advocated the elective system which dominated the American colleges for so many decades, and which the historian of Harvard University, S. E. Morison, described as "the greatest crime of the century against American youth—depriving him of his classical heritage".

Practicalism

The elective system, which was rationalized into a principle after it was introduced, was in fact adopted in an effort to lure students to the colleges, as well as being the culmination of efforts to adapt the system of higher education to the needs of the American public. The tradition of liberal education began to be critically examined in the middle of the eighteenth century, when Benjamin Franklin proposed the establishment of an institution which would offer those studies that were likely to be the most *useful* and *most practical*, rather than the traditional studies only, which he regarded as *ornamental*. After the Republic was established criticism became more general, since it was believed that the traditional studies catered to a class and were 'aristocratic' and 'monarchical'. Universal education was advocated, as by Benjamin Rush, for the preservation of the republican form of government. Rush, the founder of the first medical school in the country, urged the development of a new curriculum "to provide the training necessary to explore and apply the nation's resources" and "applicable to some of the necessary and useful purposes of life and particularly to the security and order of wise and just government". Noah Webster, believing that "liberal education disqualifies a man for business", recommended that lads should study "those branches that are connected more intimately with the business for which they are destined". Samuel H. Smith, one of the winners of the prize offered by the young American Philosophical Society for an essay on "The best system of liberal education and literary instruction, adapted to the genius of the government of the United States", held "that in youth the addition of practical to theoretical knowledge would add to its charm". And another prize-winner, Samuel Knox, stated that liberal education should have "two great leading objects to which it should be adapted, the improvement of the mind and the attainment of those arts on which the welfare, prosperity, and happiness of society depend".

The Education of Leaders

The nineteenth century opened with certain clearly defined principles that were to guide the development of higher education: Equality of educational opportunity was to be provided to promote intelligent citizenship and to prepare people to make the best of the country's resources. Faith in the value of education and the need of training spiritual and other leaders inspired the people as they moved westwards to establish denominational schools, so that it could be said by the middle of the century that "we have multiplied colleges so as to place them at every man's door". Simultaneously, state universities began to be established. Both types of institutions pursued the traditional curriculum, except that the state institutions were secular. Several decades were to elapse before the practical and utilitarian aim was put into practice, because of academic resistance to innovations. In any case the population was too busy either settling down or pushing the frontiers forward to have time for studies about whose practical contribution they were inclined to be sceptical. There was, in fact, a widespread suspicion of theory and a rooted belief that experience is the best teacher. The preference of the common man for the man of action rather than man thinking was to be the theme of Emerson's *American Scholar* (1836), and other writers who deplored the lack of interest in intellectual pursuits.

Institutions for professional training for medicine, law, dentistry, pharmacy were established outside of or as separate sections of colleges and universities. This was true of the first technical school—Rensselaer Polytechnic Institute was founded in Troy, New York, in 1825—as it was twenty and thirty years later of the scientific schools established at Harvard, Yale, and Dartmouth.

Creating a Demand for Higher Education

The progress of higher education was slow until almost the last quarter of the nineteenth century. Interest in the colleges was not to be expected, as one writer thought, from "a busy, restless, speculating, money-making people", nor did the colleges adequately meet the needs of the times. The explanation given by Henry Tappan, President of the University of Michigan, in his *University Education* (1851), deserves attention, because it also explains the direction later taken by the universities: "We inspire no general desire for higher education, and fail to collect students, because we promise and do not perform. Hence we fall into disrepute, and young men of ability continue to prepare themselves for active life without our aid. In connexion with this, the commercial spirit of our country, and the many avenues of wealth that are opened up before enterprise create a distaste for study, and deeply inimical to education. The manufacturers, the merchants, the gold-digger, will not pause in their career to gain intellectual accomplishments. While gaining knowledge they are losing the opportunities to gain money. The political condition of the country, too, is such that a high education and a high order of talent do not generally form the same guarantees of success. The tact of the demagogue triumphs over the accomplishments of the scholar and the man of genius."

Tappan sought to find a synthesis between pure scholarship on the model of the German universities and practical studies: "When it is asked what is the way of education? We may reply that we need to fit men well for the profession of life, and for the general business of the world in mechanical arts, in agriculture, and commerce or that we need to cultivate the human mind according to the philosophical or ideal conception; or we might reply, that we need all in due order and preparation. The last reply would unquestionably be correct."

A year before Tappan's essay was published, Francis Wayland, President of Brown University, in his *Report to the Corporation of Brown University on Changes in the System of Education*, advocated what Tappan called "the idea of fitting colleges to the temper of the multitude". The colleges did not attract students, he believed, "because we do not furnish the education desired by the people. Is it not time to inquire whether we cannot furnish an article for which the demand will be, at least, somewhat more remunerative?" Studies should be offered and 'adapted' to the wants of the whole community and the preparation of students for their life-careers. Civilization, he maintained, "can only advance in the line of the useful arts", which, he implied, would "increase the comforts and multiply the refinements of life".

The idea that institutions of higher education should meet the demands of the public and contribute to the welfare of society was met in part by the provisions of the Morrill Act (1862) for "the endowment, support, and maintenance of at least one college [in each state], where the leading object should be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts". Such land-grant colleges would help to improve agriculture, make scientific education available, keep farmers' children on the land, and enable sterile railroads to pay dividends, and the public to bear the increasing expenditure of the national government, and increase the loveliness of the American landscape. The 'dirt' farmer, however, was suspicious of theory for many years until by supplementary Acts experimental stations were established and practical demonstrations were given through agricultural extension. The land-grant colleges, though not immediately successful, helped to advance the notion that higher education should serve the people, particularly since many such colleges were merged with state universities or themselves became state universities.

That practical and utilitarian education should be in the service of the people was further stimulated by the increased industrial prosperity of the North after the Civil War and the expansion westwards of agriculture; by the development of the extractive industries; and by the spread over the country of a network of railways. The realization of the need was further promoted by the extension of new means of communication by telegraph and telephone. The concentration in the cities of industries using iron and other raw materials and steel changed the balance of the population from a rural to an urban population and opened up new careers in distribution and management as well as in the applied sciences and technology. The rapid industrial development after the Civil War led to the amassing of great wealth, a part of which was devoted to the benefit of private or non-tax-supported institutions. It was during this period that university and college presidents became, as President Lowell of Harvard was to say later, beggars, and the more they sought to expand their institutions, the more they had to beg.

The Expansion of Facilities

The gradual expansion of higher education was promoted from two directions. The first was the decision in the Kalamazoo, Michigan, case (1874) that secondary education constituted a part of the common school system and could be provided by public taxation. Slowly at first, the provision of high schools and the number of students increased rapidly after 1900. The second influence on the colleges was the founding of graduate schools. Some graduate education had already begun to be provided before Daniel Coit Gilman, influenced by studying in German universities, secured funds for the establishment of the Johns Hopkins University in 1876 "to enlarge the resources of American scholarship" in an institution "free from ecclesiastical and political control, where from the beginning the old and the new, the humanities and the sciences, theory and practice, would be generously promoted". In addition to medical education, the Johns Hopkins University opened up opportunities for the training of those who would advance scholarship, conduct research, and teach in colleges. The graduate schools that now rose in public and private institutions of the country saved the day for the advancement of scholarship and research in face of the demand for practical and vocational training. They also helped to advance the study of the sciences which had been resisted for many years, partly because they were new and partly because they were considered to be inimical to religious faiths.

At the close of the nineteenth century the country was provided with a large number of colleges and universities. Many of these were small, and the total enrolment was less than two hundred thousand. Standards varied from one institution to another, and in the absence of an adequate supply of high schools many conducted preparatory classes.

Opportunities for higher education began to be provided for women either in separate or in co-educational institutions about 1840. Enrolments rose gradually with the relaxation on the rigidity of the curriculum and with the adoption of the elective system under the influence of Charles W. Eliot, President of Harvard, who started the practice in his own institution in 1872. The elective system was characteristic of the college curriculum for almost fifty years after its introduction. While it brought about greater flexibility in the curriculum, it can hardly be claimed to have provided the basis for an organized educational programme. Nevertheless, the colleges began by the end of the century to enjoy a prestige that they had not previously enjoyed. The graduate schools on their side began to develop new departments and an organization separate from the colleges, and helped to raise the standards of scholarship of future college teachers. The status of higher education at this period can be gauged by the increase of endowments through the gifts of philanthropists, who may or may not themselves have enjoyed the benefits of a college education.

To those who deplored the multiplication of colleges throughout the country and feared a consequent lowering of standards, James (later Viscount) Bryce replied in his *American Commonwealth* that: "They get a hold of a multitude of poor men, who might never resort to a distant place of education. They set learning in a visible form, plain, indeed, and humble, but dignified even in her humility before the eyes of a rustic people, in whom the love of knowledge, naturally strong, might never break from the bud into the flower but for the care of some jealous gardener. They give the chance of rising in some intellectual walk of life to many a strong and earnest nature, who might otherwise have remained an artisan or storekeeper, and perhaps failed in their avocations." In the light of the limited opportunities even for secondary education with which Bryce was familiar in England at the time that he wrote, this estimate of higher education in the United States gains additional value.

Admission Requirements

The early years of the twentieth century were devoted to the development of standards in higher and in secondary education. For the high schools, standards and aims were defined by the Committee of Ten of the National Education Association (1893) and by the Committee on College Entrance Requirements (1899), whose report led to the creation of the College Entrance Examination Board, which became increasingly influential in the ensuing decades. The standards for colleges were defined indirectly by such bodies as the General Education Board, the Carnegie Foundation for the Advancement of Teaching, the Association of American Colleges, the Association of American Universities, and a number of local and regional accrediting agencies. The Carnegie Foundation's requirements for the admission of colleges and universities to the list of institutions, whose teachers would be eligible for retiring allowances, exercised a great measure of influence. Such institutions were required to be non-denominational, to have adequate library and other equipment, to be adequately endowed, to engage only in post-secondary school work, and to have a suitable percentage of Ph.D.s on their staffs. In general, standards began to be measured quantitatively throughout the country in terms of units, points, or credits, a practice employed by the New York State Board of Regents for some years before it was popularized by the Carnegie Foundation. The function exercised in British universities by external examiners is performed by accrediting bodies, state and nation-wide, and by graduate schools which assess the credentials of college graduates when they apply for admission.

The standards of colleges were also raised by investigations or surveys conducted by groups of experts, by the Foundations, by the U.S. Bureau (later Office) of Education, and by the American Council on Education, a co-ordinating body in higher education formed in 1918. The movement was also aided by special studies of professional schools, such as the famous study of medical education by Abraham Flexner, which was followed by the studies of legal, dental, pharmaceutical, engineering, and nursing education. More important was the influence of graduate schools, which helped to raise the standards of scholarship and research. The cult of the Ph.D., as a qualification for teaching in colleges, had its weaknesses, but in the long run the standards of scholarship and research came to be as high as in any other country.

fact, become more serious since the Harvard report appeared, partly because the contributions of science and technology during the war have appealed to youth and the public in general, and partly because of active propaganda in favour of these areas of study which has been conducted in the face of the challenge of Soviet Russia.

Élitism and Higher Education

A distinctive characteristic of American higher education is that it is not limited to the preparation of an intellectual *élite* or the promotion of scholarship and research, although both aims are recognized. It should be borne in mind that the American college overlaps the last years of the secondary school and the first years of the university in other countries. Further, higher education has a responsibility to answer the question posed in a book by Professor Robert Lynd, *Knowledge for What?*—a question already implied in the strictures on the traditional education in the writings of the early American educators cited above. The increasing enrolments of the last thirty years, including a vast number of ex-service men and women after World War II, have resulted in an expansion of courses to meet the diversity of student needs and abilities. There has also been an attempt to meet the new needs of society in an era of rapid cultural change. The Commission on Higher Education for American Democracy, appointed by President Truman, in discussing the social role of higher education, stated this clearly in the last sentences of the passages cited above and repeated here because of their direct pertinence: " Effective democratic education will deal directly with current problems. It is essential that education come decisively to grips with the world of mankind." This statement re-affirms the American aim of education that was so frequently urged before 1800 and re-echoed periodically in the nineteenth century. More readily than in other countries, because it is dependent on public opinion and support rather than government action, higher-education institutions in the United States respond to public demand. In America the two strands are interwoven, and intellectual training and public service are intertwined. But even the intellectual aim is not pursued as an end in itself, but as a preparation for intelligent citizenship and breadth of interests in professional careers. The notion of service arises not only from the fact that higher education depends on public interest and support, but also from the belief that expertise in any activity, public or private, involves special training and cannot result from general, liberal education alone. This idea is based on the notion that the doctrine of formal discipline and transfer was 'exploded' some fifty years ago by the investigations of psychologists.

Scholarship and Research

Because the courses offered in colleges and universities go far beyond those found in the tradition of higher education, they have attracted more attention than the actual contributions that American colleges and universities have made to scholarship and research. Many of the courses that have been held up to ridicule are in fact found in other countries but in institutions outside the universities, while in the United States an effort is made to naturalize them within colleges and universities. Since state universities are supported by public taxation, the public expects them to meet all manner of needs, and since endowed institutions consider themselves to be 'public but not tax-supported' rather than private in an exclusive sense, they tend to follow the same practices. In offering what appear to be non-intellectual, practical courses, American institutions have not employed any other criteria than demand. They have not, as suggested in the report of the Nuffield College Sub-Committee, *The Problem of British Universities*, considered whether there should be a scientific or a scholarly basis for the inclusion of such courses in institutions of higher education.

It is in fact only on the two aims—the individual and the social—that the great increase that is expected in colleges and universities can be contemplated with equanimity. When the President's Commission on Higher Education for American Democracy suggested that 4,600,000 students could profit from post-secondary education of all kinds, the suggestion was met with scepticism or ridicule. The post-war birth-rate has confounded the experts, and an enrolment of about six million students is anticipated in less than ten years.

Resources for Higher Education

How these will be accommodated is the most critical issue that faces education and the public to-day. The issue is not only financial; already serious questions have arisen on the economic status and salaries of college and university personnel, which were not settled but only alleviated in 1956 by the generous allocation by the Ford Foundation of funds for salaries in 615 higher-education institutions. Buildings and equipment, libraries, increased staffing, all demand more money, which can be obtained only from the public, since state governments cannot aid private institutions, and since federal grants are generally feared lest they mean control by the federal government. Colleges and universities have organized state and regional committees to secure funds from industrial and business concerns, on the ground that they benefit from the employment of personnel trained by these institutions. Thus it is hoped that the notion of service to the community will bring rewards to the institutions that have performed it.

Another serious aspect of the problem arises from the raising of tuition and other fees in most institutions and the restrictions on the number of students from other areas that a state institution can admit. Recently a large number of national and regional institutions, as well as some of the major technological concerns, have established scholarship funds. On the whole, however, the provision of scholarships is not as generous in the United States as in Great Britain. At present the issue is particularly serious since it has been discovered that inadequate provision, both financially and scholastically, has been made for young persons of ability, and that the supply of scientists and engineers is small when compared with the numbers being trained in Soviet Russia. Efforts are being made, both in the secondary schools and in the colleges, to extend the search for gifted students, but under existing conditions the dice seem to be loaded in favour of the sciences, engineering, and technology.

An Assessment of American Higher Education

The concept of American higher-education institutions can best be understood by comparing the list of demands made on British universities presented in the Nuffield College Sub-Committee's Report [1] with the activities listed by Professor Richard Hofstadter in *The Development and Scope of Higher Education in the United States*:

> From the standpoint of its obligation to the community at large, American higher education can point to an admirable record. While its officials and teachers often had to struggle against tendencies in American life that create an unhealthy atmosphere for good education, they have responded readily and with enthusiasm to all the legitimate needs of that society. They have created a system that offers a wider variety of services to meet a wider variety of needs than any other educational system in the world. They have educated at the undergraduate, graduate, and professional levels a larger proportion of the whole population than is so educated elsewhere, and they have offered the broadest educational fare in the history of educational systems. They have promoted one of the dearest ends of American society—social mobility—by breaking in heroic measure the bottleneck of educational and technical skills that would otherwise have prevented innumerable citizens from enjoying the privileges of the careers for which their talents fit them. They have made notable advances in practically every sphere of human knowledge. They have offered a haven, as no other university system has, to creative artists as well as to teachers and scholars. They have been indispensable in creating the nation's remarkable technological proficiency. They have—and perhaps this is the most objective evidence of meritorious achievements—built an educational system which is looked upon with respect and joined with enthusiasm by Euro-

---

[1] P. 86 f.

pean scholars who spring from somewhat different traditions of education and from cultures which tend to look skeptically upon all things American.[2]

Foreign education, and the public who have derived their notions of American higher education from Flexner's *Universities, American, English, German*, appear to have overlooked a passage in an earlier part of the book,[3] in which Flexner paid a similar tribute to the achievements of higher education in the United States. After giving an account of these achievements, he continued:

> The country cannot, of course, dispense with Europe: but in the realm of higher education America has become in certain fields a country with which Europe cannot any longer dispense either. I shall go into details as I proceed. But this categorical statement I make now at the outset, in order that the reader may know, that, however severely I reprobate many of the doings of our universities, I do full justice to their achievements.

American higher education can in fact best be appreciated not if measured by the standards of the traditional concept, which is in any case changing everywhere, but in the light of Flexner's almost axiomatic statement: "Every age does its own creating and re-shaping; so does every country."

I. L. KANDEL.

---

[2] Hofstadter and Hardy, *The Development and Scope of Higher Education in the United States* (Columbia University Press, 1952), p. 101.

[3] P. 42.

CHAPTER SEVEN

The Contemporary Academic Scene in the United States

THE university is the institution designed for the systematic interpretation and promotion of ideas in the service of truth. Whatever its functions may be in relation to society, the state, and the professions—and there are many—there lies its noblest task.

It is at the same time in the essence of the university that it is joyfully as well as painfully aware of the ultimate unattainability of its mission —joyfully, for what greater goal can man set for himself than to understand the nature of reality of which he is a part; painfully, because in the pursuit of it he is constantly reminded of his utter finiteness, for truth in its completeness is beyond human power. Yet, we know that to give up this striving would be the end of civilization. This not only because it may diminish our knowledge, prevent new and useful discoveries and inventions, and block our insight into the laws of life on the obedience to which our survival depends, but also because any means that prevents man from thinking prevents him also from being man, and humanity as a whole from being humanity.

Hence, it is of the utmost importance that every nation asks itself constantly to what degree its advanced scholarly institutions educate men devoted to the ideal of advancing truth, or in other words, to what degree they deserve the title they like to bear, namely, institutions of 'higher learning'. For what should the word 'higher' mean? Merely being farther on the scale of years of schooling and of selection and prestige, or more intensively and freely occupied with the purpose of widening the sphere of knowledge in an atmosphere of intellectual freedom? [1]

The situation of higher studies in the United States—on which this article will concentrate—has been discussed in two books, published in 1955. The first of these two, *The Development of Academic Freedom in the United States*, by Richard Hofstadter and Walter P. Metzger, deals with its topic from the more historical, the other, *Academic Freedom*

---

[1] With the mission of the university in the history of Western civilization, I have dealt in an essay "On the Rise and Decline of High Education" in *Goals for American Education*, a Symposium, edited by Bryson, Finkelstein, and MacIver, Ninth Symposium of the Conference on Science, Philosophy, and Religion (Harper & Bros., New York, 1950), and in my book *Crisis and Hope in American Education* (Beacon Press, Boston, 1951).

in Our Time, by Robert M. MacIver, from the more contemporary point of view. The wealth of material provided by these two works in regard to the American scene permits me to omit details concerning the historical, political, and sociological aspects and to approach my subject under a more educational and comparative aspect. Knowing well that it will be difficult to avoid generalities, I will deal,

First: with the American climate of opinion concerning the essence and purpose of academic studies;
Second: with the scholarly spirit prevailing in the institutions of higher learning;
Third: with the selective process;
Fourth: with the prospects for the future.

The European Heritage

First, *the climate of opinion*. It is a cliché I have always tried to avoid to say that the United States is 'a young country'. Yet, in contrast to the European nations, it has not gone through medieval scholasticism and monarchical absolutism, both institutions which—in addition to bourgeois liberalism, of which America has had its full share—have moulded the character of European higher learning. The medieval university was essentially a priestly institution, and this fact gave prestige not only to its *magistri* and *doctores*, but also to the professors of the secularized universities of later times. The Faculty of Theology at the University of Paris was one of the most powerful institutions of the kingdom until in 1792 it was suppressed by the Revolution; Oxford and Cambridge were, in a way, ecclesiastically controlled until the middle of the nineteenth century, and the University of Berlin had as its spiritual foundation a form of idealism which, in essence, was a mixture of eighteenth-century rationalism with Protestant religious individualism. "The university", so says the theologian Schleiermacher in his memorandum concerning the foundation of the new university, "must help them [its students] to master the contents and methods of research in that special field to which they wish to devote themselves. But whatever they do, it must become natural to them to contemplate the detail from a philosophical point of view. . . . They must be able to incorporate the part into the great universe of the Spirit and to understand how this universe works in every single act of thought." The academic teacher was the new 'priest of truth'.

Consequently, in the hierarchical order of values the one who 'professed' had a halo around his head, however low his income.

During the period of monarchical absolutism, the universities were, in a way, first degraded in that, at least on the European continent, the centralizing tendencies of government subjected them to various restrictions and changed them from international to national institutions whose members were supposed to serve the crown and the affiliated church; otherwise, like Kant, they were reprimanded. Nevertheless, the academic teacher was closer to the prince than any other social class outside the hereditary nobility, which occupied the preferred positions within the army and the officialdom. Absolutist monarchs recognized the usefulness of good professors and rewarded them with decorations and other honours, and at the end of the eighteenth century the idea of *libertas philosophandi*, first advanced by Spinoza in his *Tractatus Theologico-Politicus*, became almost reality for the teachers at the University of Göttingen, founded in 1736 under the House of Hanover. Also, the kings of Prussia (the University of Halle was founded in 1693, and the University of Berlin in 1809) began to understand that a certain liberty in the exchange of ideas was more conducive to national welfare and to successful intellectual competition with other German and foreign states than was rigid control. Since then, with varying effect in various countries, membership in the body of a university carried with it the mark of distinction, partly due to social rank, but partly also to the cherished freedom going with academic positions.

No doubt many features of the European heritage have been transferred to the universities of the United States. The first of them, conspicuously Harvard and Yale, were primarily institutions for the training of faithful ministers, and thus continued, in a way, the medieval scholastic tradition, though under Protestant auspices. Their teachers, nevertheless, were far away from the prestige atmosphere of European ecclesiastical and monarchical hierarchies, and that was still more the case with all the struggling little community enterprises formed as 'colleges' in later times. Furthermore, whereas during the seventeenth century, especially in New England, teachers were highly respected, their status declined deplorably during the eighteenth century. Without additional income most of them could not make a living.

The Pragmatic Outlook

Also to-day, however much a fine teacher may be admired by his students, a professor is not what he is in most European countries. Some of the nationally known old universities are an exception; the trustees and administration of Harvard defended unequivocally the value of academic freedom against the threat of 'McCarthyism'. But, on the whole, the American citizen is—in spite of a good dose of idealistic sentiments—a robust pragmatist, and if others are 'hired and fired', why not also a professor? Those who want to have the humiliating examples of this firing activity by boards of trustees, political bosses, and cowardly presidents, can read about them in MacIver's book. And there is an old story which, though certainly fictitious, contains nevertheless a germ of truth. When the famous Negro leader, Booker T. Washington, in 1896 was awarded the honorary Master's degree by Harvard University, some of the gentlemen, customarily invited to the official dinner, pondered how to address him. "For obvious reasons," said one, "we can't call him 'mister'." "But neither can we call him 'master'," said another one. "That's the way colored servants call our boys." After a while of meditation a third one said: "Why not call him 'professor'?" And this suggestion was unanimously accepted.

I dare not believe that, despite the recent cry for 'better education', the utilitarian attitude of the average American to higher learning has essentially changed. The nation has been told for a long time that its high schools, whatever their social advantages are (and I believe they are considerable), reflected the development of intellectual talent; it has miserably neglected the financing of its smaller colleges, whose presidents are a kind of secular mendicants; and the prestige suddenly given to the professor of physics is not to honour the professor, but the man who may defeat the Russians in new machines of destruction. Yet, the American nation is full of contrasts and surprises. The shock from the discovery that the communists 'are ahead' may have a wholesome influence on the total aspect of education. In any case, it would be difficult now for McCarthy committees to beat liberal professors with the fist of patriotism; they have become precious.

Scholarship in Institutions of Higher Learning

In trying to assess the *scholarly spirit* within the American schools of higher learning, one has to keep in mind their enormous variety. The United States has about one thousand six hundred institutions, ranging from undergraduate liberal arts colleges with teachers one would hesitate to appoint at a good English grammar school or a French *lycée*, to colleges with high standards and to universities which are on the same level as the best academic institutions all over the world. But they all—especially the State-supported universities which, at least for the first year, have to accept every candidate from the respective State who has graduated from a high school with the sufficient number of credits—suffer from the modest claims in regard to scholastic achievements within the secondary school systems. Particularly in the Middle West, students graduate even from the so-called 'college preparatory division' of a high school without having come in contact with any foreign language. In consequence of the 'single ladder' structure of American public education, the high school, instead of selecting gifted students for higher studies, has become more and more an establishment for the training in citizenship, decent living, and social understanding. I have to repeat that I highly respect this achievement in a country of immigrants, but there is no necessary reason why it should be paid for so dearly in terms of sound knowledge in scholarly subjects. Even the college entrance examinations, administered by special boards, are no sufficient barrier against mediocrity, for naturally every nation's standards, even on the higher level, are somehow regulated by the expectations which the country as a whole has in regard to the intellectual quality of its youth. Thus, even in good colleges and universities, excellent teachers lose time explaining scholarly methods and data, whether in the humanities or the sciences, which could and should have been learned in earlier years; an expensive apparatus in testing and guidance has to be set up to guarantee a proper relation between the student's work and the requested standard; and the administrative staff, busy with innumerable details, constantly increases beyond anything known in European universities.

However, for this very reason the nationally known institutions are now able to select out of an overwhelming number of applicants students who, though not entering with the best possible scholastic preparation, possess high potential talent and are willing to learn. They are a joy for a good teacher. Here is perhaps the essential difference between European and American student life. Whereas in Europe rigid discipline is demanded in the secondary schools, with the result that the well-drilled student can be given more freedom on the higher level, in the United States the process is in reverse order; the adolescent enjoys the freedom and the mature student gets the harness fastened around his neck. Every one of my European colleagues is surprised at the measure of regulations, course prescriptions, tests, and fixed assignments imposed on the young *civis academicus*. I personally am inclined to prefer the European order, thinking that freedom is a privilege that should come with maturity. But this may be prejudice, for it has to be acknowledged that, in consequence of this careful supervision, the 'mortality-rate' of students during their undergraduate years at good institutions has constantly decreased, while the demands of achievement increase sharply every year. Quantitatively high during the first two, they become also qualitatively demanding during the later years. The alumnus of a graduate school of a good American university may still be uncreative, but he has learned his stuff, whereas, at least in former times, the European universities sent into the professions people of very diverse quality, geniuses as well as men who succeeded only after the second or third trial in their final examinations, and this often because the professors just did not wish to see them any more. And with the increasing tendency towards a 'generalized' programme during the first two years of the American college, the danger of narrow specialization is no longer so great as in earlier decades. Yet, to turn the argument once more around, when, during this guided tour through the lands of wisdom, does there remain time to look quietly at an old tower, to wander into the calming shades of a castle far off the high road, to sit down and deepen one's mind through meditation? Americans complain sometimes—whether rightly or not I do not know—that in comparison with their remarkable talent in the applied sciences they produce relatively few basic theoretical ideas. If this is true, it may be due to an almost trained inability to relax and wait until the 'productive hunch' announces itself. It needs a 'quick reader' to go through all the 'required' reading, but the quick mind, as we know, is not always the deepest.

Naturally, this situation of tension reflects also on the teacher. Except in a few preferred positions, he has too many hours to teach and conferences to attend, too many papers to correct, and too many consultation hours. The life of a professor at the Sorbonne seems to him like something from another, perhaps not even desirable, world. For much though he likes his study at home, he also likes the door of his office to be open for his students. An American college is much more a human community than a Continental university; this is one of the reasons for the attachment of the alumnus to his Alma Mater, which he generally helps to finance as long as he is earning.

Some Implications on Selection

With these remarks we have already touched upon our *third* topic, the *selective process*. It is generally not, as in many European universities, concentrated in a final examination, except for the Ph.D. candidate, but distributed over the whole academic career. From the freshman year on (first year in college), even to the graduate studies, the American student goes through a continuous series of trials. At most institutions psychological and intelligence tests are also administered. After every course he receives a grade. Only a very few institutions now dare to deviate from this pattern after the first few years. As already indicated when we spoke of the low mortality-rate, the American system has the advantage of early warning, whereas in certain other countries many students discover not before the final years of study and in a state of sudden panic that they are unfit. When once I discussed this problem with older students, they could not say which system they would prefer from a psychological point of view, one deep and decisive excitement at the end, or a continuous series of little excitements during the whole period of study. Indeed, the number of nervous breakdowns and suicides in American colleges, for both men and women, is frightening, despite all guidance, tutoring, and psychiatry.

Furthermore, conscientious American professors, especially those who teach large classes, often discuss the problem (which leads us back into the second section of this essay), namely to what degree the whole system of grades and credits is detrimental to the scholarly spirit of an institution. Abbott Lawrence Lowell, President of Harvard from 1909 to 1933, already blamed credits and grades for being mechanical and quantitative, working like a savings bank where the student deposits his goods in order to receive after some years a piled-up sum in the form of a Bachelor's degree. Serious doubts are now also being raised concerning the Ph.D. It often takes a very long time after the Master's degree, not rarely three to four years; the supervision of the candidate consumes an undue portion of the professor's working hours, but often it is more a premium for perseverence (the Germans call it *Sitzfleisch*) than for genuine scholarly talent. At the end, too many of those who finally have succeeded seem to be exhausted; only about 15 per cent of the Ph.Ds later produce anything which, even under most modest criteria, can be called a work of scholarship. Yet, a doctorate degree of some kind becomes more and more the requirement of an academic appointment, even in smaller colleges, and there again the condition for promotion is often more one of endurance than of intellectual productivity.

But where is the ideal selective system? The French *concours* is certainly the most-thought-out and best-controlled of all examination procedures. Yet, when twenty-five years ago at an international institute in Switzerland I asked twelve French professors, all of outstanding merit, about their opinions concerning the *concours*, one half of them said that it was more a negative than a positive selection. It guaranteed the capacity of cramming but by no means intellectual initiative. Therefore, though it was just in procedure, it was unjust to individual talent. The other half of the professors definitely asserted their belief in the *concours*; though somewhat mechanical, it secured, from their point of view, thorough scholarship and prevented arbitrariness. And since, so they said, specialization comes later anyhow, enforce at least a degree of conformity and comprehensiveness in earlier years.

Future Trends

Now to the *fourth* and last point, *the prospects for the future*. In consequence of the gigantic development of higher education in the United States it is often forgotten that up to the end of the nineteenth century the American scholar had to go abroad to acquaint himself with advanced methods of research. First-class professional training in graduate departments of American universities is not more than about fifty to seventy years old. The way from 1900 to the present is an amazing achievement, especially if one considers that the public high school had to integrate millions of immigrants of highly different ethnic, social, and cultural backgrounds into a proud and self-conscious nation, and consequently fell short of the goal of good scholastic preparation for higher studies. Why should the next fifty years be of lesser quality? True, in consequence of centuries of progress and success the American tends to be complacent; though rightly criticizing other nations for their nationalism and himself liberally criticizing his own country, he is sensitive to criticism from without and chauvinistic when he feels his security threatened. There were anti-foreign riots and ideological persecutions during and after World War I. And some Congressional investigations into assumed subversive behaviour after World War II were an offence to the spirit of the American Constitution they pretended to defend. The reaction of many educators to Russian scientific advances borders on hysteria. That can become dangerous, if, as is the case, the same men who up to a decade ago exercised their missionary spirit in trying to impose the American democratic school system on other nations are now suddenly willing to give up their educational tradition and to imitate the Russians. Yet, when finally regulated, the excitement may also serve as a spur to self-examination and better achievement.

In all likelihood, both the secondary schools and the institutions of higher learning will react to the increasing demands of the nation for scientific manpower by telling it that in order to have better schools and a larger number of better scholars it will have to develop more respect for the teaching profession, pay better salaries, and leave politics out of the school boards and other responsible agencies. There is, nevertheless, the danger that, again, one will confound quantity and quality. For even though one may send half of the nation's youth to college, and attract good instructors through better salaries, there will be still very few truly creative men. They cannot be manufactured on the assembly line, but need conditions which least and last can be found in the atmosphere of mass production. Early selection, stimulation, and discipline of talent should come in adolescence and it should be allowed to mature in colleges and universities which combine scholarly thoroughness with the opportunity for intellectual adventure. And this spirit of adventure should not be one-sidedly directed towards science. For, first, a civilized nation lives on broader values than scientific discoveries, and, secondly, even scientific discovery does not come from intellectual inbreeding. The great mathematical and physical minds which have prepared our new insights into the workshop of nature were educated in the old humane tradition. Probably the combination of this tradition with later specialization provided the wealth of comparison and association which is the basis of new ideas. Of course, some of the intended and necessary reforms in American education need the support of organization, but organization alone will be of no avail. The greater task lies in a change of mind. Americans must understand how to combine a constantly increasing federal support of research and teaching with non-interference in the programmes and contents of study and in the pursuit of truth, whatever the outcome. This, in turn, requires—besides ' eternal vigilance ' on the part of the citizen—a well-trained and highly educated officialdom in the central authorities, and of this precious property the country is still short. Far too many of the higher positions in Washington and in State capitals are still compensations for political assistance. Americans must also learn that good fruits ripen slowly, that one cannot judge scholarly depth and theoretical boldness by the criterion of immedate usefulness, and that the greatest help one can give to a true scholar lies in providing for him the opportunity to work and think, and otherwise in leaving him alone. Even so, the gift of creativeness is thorned with labour and sacrifice. There are no eight-hour days and week-ends for a fascinated mind.

ROBERT ULICH.

BIBLIOGRAPHY

Bryson, Finkelstein, and MacIver (eds.), *Goals for American Education*, Conference on Science, Philosophy, and Religion in their Relation to the Democratic Way of Life, 9th Symposium (Harper & Brothers, New York, 1950).

Richard Hofstadter and Walter P. Metzger, *The Development of Academic Freedom in the United States* (Columbia University Press, New York, 1955).

Robert M. MacIver, *Academic Freedom in Our Time* (Columbia University Press, New York, 1955).

Abbott Lawrence Lowell, *At War with Academic Traditions in America* (Harvard University Press, Cambridge, Massachusetts, 1934).

Jose Ortega y Gasset, *Mission of the University*, translated with an introduction by Howard Lee Nostrand (Princeton University Press, Princeton, 1944).

Eduard Spranger, *Fichte Schleiermacher, Steffens über das Wesen der Universitaet*, mit Einleitung hrsg, u. Ed. Spranger (Durr, Leipzig, 1910), (Philosophische Bibliothek, 120).

Robert Ulich, *Crisis and Hope in American Education* (The Beacon Press, Boston, 1951).

CHAPTER EIGHT

American Universities and Liberal Education

THE advance of Russian science and technology as evidenced by their Sputniks has thrown a real scare into the American public. Both lay and professional people are demanding that American education be overhauled to meet the threat. The principal cry has been for greater emphasis on science in the curricula of secondary and higher education, and for a better selection of talented students. There can be little doubt that efforts in both these directions are long overdue.

But there is another direction in which improvement must also be sought. This is in the field of motivation. The best curricula studied by the most talented students will still fall short of what the times demand if improvement in motivation is neglected. If it were possible to rate the efficiency of education in the way engineers rate the efficiency of a motor, it is probable that a very low rating would result. When we compare the energies resident in the student bodies of our colleges and universities with the actual output, we can only lament the disparity. The scholastic potential compared to the scholastic achievement is like a high-powered automobile engine which fails to deliver its power to the rear wheels of the car because of a slipping clutch. Wherein are we slipping academically?

Many people have been increasingly concerned with this question. Even college students are not unmindful of the discrepancy between what they ought to be doing and what they actually are doing scholastically. A recent student honour society has published a report on 'academic indifference' on its campus.[1] Laudable as this report is, it does not penetrate deeply enough. The report addresses itself largely to mechanical considerations—the marking system, the competition of extra-curricular activities, student-faculty relations, and the like. A more mature study under the auspices of the Hazen Foundation considers the wider problem of the actual values which students hold and whether the instructor sways them more by direct or permissive, student- or subject-centred techniques.[2] Although this study is also in part taken up with mechanics it does direct attention to the broader and deeper problem of the mainsprings of student motivation. It concludes that these springs are surprisingly little affected by undergraduate instruction. Why is this?

---

[1] The Aurelian Society, *Academic Indifference at Yale* (New Haven, Conn., 1957).

[2] Philip E. Jacobs, *Changing Values in College* (Harper Brothers, New York, 1957). [See Professor Riesman's article, pp. 386–404—Editors.]

The Problem of Anti-Intellectualism

There are many facets to the query, as the Hazen study discloses all too clearly. I shall attempt a further analysis of only one of them, the accusation that the undergraduate is anti-intellectual. My concern with this indictment is with the disposition of the student towards intellectual activities. At its worst it amounts to a positive sabotage of intellectual pursuits. Here the student often ridicules his fellow student, who is absorbed with intellectual interests, as a 'queer' or a 'grind'. At its mildest, anti-intellectualism may amount to no more than academic indifference. Here the student is not actively hostile to, but neither is he energetically for, intellectual endeavour.

Because the undergraduate is often indifferent towards affairs of the mind it would be a mistake to think that he is a flaccid fellow indisposed to or incapable of earnest effort. Quite the contrary is the case. Nothing points up this fact more than the incredible effort which he is willing to put into athletics. As has often been pointed out, if he would take a corresponding interest in his studies he would be able to move intellectual mountains. Indeed, this is exactly the situation which by and large obtains in our professional schools. There we find a long-standing tradition of hard application to studies. But how to enlist this effort in the undergraduate college? This was a problem with which the late President A. Lawrence Lowell wrestled at Harvard. The recent world war provided another interesting instance of the same phenomenon. In the officer-candidate schools, students found no effort too great to win those coveted gold shoulder bars.

Obviously the American undergraduate has immense latent powers which he can throw into his educational programme. Why does he not do it? Military and professional instruction possesses two overpowering advantages. In the first place their aim is clear cut. The connexion between success in school and success after school is direct and unambiguous. In the second place the student *accepts* this aim. Ordinarily the instructor gives direction to his course and the student follows along. But the aims of education should do much more than set the direction of instruction. They should also provide its motivation! This they can not do unless the student appropriates them as his own, that is, *identifies* himself with them, emotionally *accepts* them to act on.

Liberal or general education is at a distinct disadvantage on both these points. On the first one, we may ask with what unmistakable rewards is liberal or general education connected? The usual answer is that this kind of education is its own reward. This is precisely what Cardinal Newman and a long line of both predecessors and successors have said.[3] Such an answer may be clear and unambiguous to the faculty, but is it to the undergraduate? This is dubious, at best. Even if it is clear we may ask, on the second point, does he *accept* it? Of course, some do and some don't. But obviously fewer do than don't; otherwise there would be no problem of anti-intellectualism. The undergraduate takes his direction from the faculty, but all too often he shows no personal commitment or attachment. How is the student to be won over to whole-heartedly embracing liberal or general education?

The Intrinsic or Aesthetic Appeal of Intellectualism

Perhaps the worst way is for the faculty to take an attitude which says to the student: "We've got it; come and get it. If you don't come yourself, we won't come after you. If you don't acquire the sweet fruit of learning, it will be no fault of ours." This is the 'hard-boiled' attitude, as Henry Seidel Canby described it in *Alma Mater*.[4] Stated in this manner the attitude is understandably offensive. Nevertheless there is an underlying assumption here which many faculty members believe they are warranted in making. The higher learning is necessarily intellectual in character. If a student comes to college, they are warranted in assuming that he comes for intellectual purposes. If he does not come for such purposes, then perhaps they may confirm a long-standing suspicion that there are already too many in college who have no business there in the first place. Remove or ignore them, and the problem of anti-intellectualism disappears into thin air. To take this action, however, would seriously de-populate the colleges. This is no real solution for a complex, democratic, industrial society like ours.

We must go back and start again. We must remember that our problem is not so much to justify our direction as to get students to *accept* it. Much as faculties might like to concern themselves with purely intellectual interests, they cannot by assumption or otherwise sidestep the problem of motivation. In starting again we might begin by proposing a possible analysis of the motivation of those teachers and students who admit intellectual interests. Ordinarily they proceed on the theory that the values to be gained from a liberal education are inherent in the liberal arts. These arts are worthy of our study because they bring out our humanity. What distinguishes the human from the brute is intelligence. Therefore it is an intellectual quality resident in the liberal arts which appeals to us as intelligent beings.

---

[3] Cardinal John Newman, *The Idea of a University* (Longmans, Green & Co., London, 1886), p. 103.

[4] Henry Seidel Canby, *Alma Mater* (Farrar & Rinehart, 1936, New York).

For intelligent people who see or appreciate this intelligible content of the curriculum, motivation presents no problems. There is an almost compelling quality about such a curriculum which fascinates them. The values inherent there make an intrinsic appeal on their own account. This is the reason why Newman could claim that liberal education was valuable as an end in itself, why it was valuable without sequel. Most college professors and instructors love their subject-matter in just this fashion. They take an almost aesthetic delight in it. Their only problem is how to get their students to enjoy it similarly. The way to do this, some say, is for the professor to so exude his enthusiasm for his subject that it becomes contagious. This is easier said than done. A joke does not become funny because its author laughs at it. Transmitting a feeling of humour or enthusiasm is a very subtle affair. Similarly, it has often been said that education is the art of communicating truth, but communication is more than just a matter of logical exposition. It is also a matter of rhetoric, of eliciting the zeal and devotion of the student to the values inherent in the curriculum.[5] The professor must 'persuade' his students as well as convince them.

Yet, after having said all this, how many students are capable of being 'persuaded' to an intrinsic enjoyment of the liberal arts and sciences? Perhaps a greater number than we think. And how many teachers possess the art of persuading large numbers? Probably fewer than we would like to admit. The upshot is that large numbers of students fall considerably short of the classic ideal of ever enjoying intellectual interests. Yet faculty members have not surrendered easily at this point. So confident are they that intellectual studies are valuable on their own account, that these studies have intrinsic merit even if not recognized by dull clods, that they insist on student exposure to them anyhow. If the faculty cannot motivate their study intrinsically, they resort to extrinsic motivation. Hence the great emphasis on grades as a motivator of collegiate studies. Ask any American student and, if he is frank, he will admit it is grades that drive him to keep up in his studies. The 'dean's list' and *Phi Beta Kappa* are rewards for the bright students, with 'warnings' and 'probation' the punishment for the dull ones. Yet strive as the faculty may to enhance the rewards of scholarship, the 'dean's list' and *Phi Beta Kappa* do not carry the impelling rewards that shoulder bars do. These academic rewards, like the studies they represent, have chiefly an intrinsic value, something to be enjoyed in itself. The truth seems to be that intrinsic rewards, while they are more than sufficient to motivate the faculty and perhaps a relatively small percentage of the students, are insufficient to motivate the large majority.

---

[5] John Wild, "Education and Human Society: A Realistic View", in *Modern Philosophies and Education*, Fifty-fourth Yearbook, National Society for the Study of Education (University of Chicago Press, Chicago, 1955). pp. 30–1.

Instrumental Motivation

The fault of the faculty is not so much in insisting on the intrinsic merit of intellectual studies as in imposing their own professional stereotype on all students. The nobility of accepting intellectual studies as ends in themselves may be conceded. But intelligence can be a motivating force in other ways than as an end. It can also be a motivator when used as a means. Indeed, seen as a means to other *accepted* ends, intellectual studies may much more readily fire the student's imagination. There can be little doubt that the reason the professional student puts forth such prodigious intellectual effort is because he sees it as a means to a chosen end. Now there are many possible ends towards which the student may choose to bend his intellectual efforts. Pursuit of the liberal arts and sciences is only one of them. It happens to be the professional end of professors, or the professional end of gentlemen of leisure in bygone days. It would be nearly as wrong, however, to insist that all choose this professional end as to insist that all choose the professional end of law, medicine, or engineering. Yet this is almost exactly what faculties of arts and sciences do. There are many, therefore, who will probably enjoy intellectual studies as a means to other chosen and accepted ends, who would never be inclined to choose them as an end in themselves.

There is nothing particularly novel in this view of motivating intellectual studies. It is one which Charles William Eliot of Harvard sought to employ fifty and more years ago under the rubric of 'the life career' motive. Hitch the wagon of the curriculum to this steed and Eliot was confident there would be no difficulty in motivating collegiate studies. It is also implicit in the educational philosophy of John Dewey. In setting forth his five steps in the problem method of teaching he commences with the student involved in some on-going activity.[6] Starting with what the student is currently involved in doing ensures starting with some end to which he is already voluntarily committed. To employ this strategy is to win more than half the battle of motivation *acceptance* at the very outset.

Intellectual activity is readily stimulated after this point of departure.

---

[6] John Dewey, *How We Think*, rev. ed. (D. C. Heath & Co., Boston, 1933), Chap. 5.

As Dewey goes on to point out, the second step consists in an intellectual analysis of some difficulty which seems to obstruct carrying the ongoing activity through to a conclusion. The third step is intellectual in the more traditional sense. It consists of collecting data which bears on the problem. Here one must go to the funded heritage of the past to learn what is available. In the fourth step, the formulation of an hypothesis of what to do under the circumstances, one of the most stimulating and challenging intellectual exercises is involved. And of course, when the student puts his hypothesis to the test in the fifth and final step he must keep intellectually awake every minute to see whether events substantiate his hypothesis or whether reformulations of it are necessary as the experiment proceeds. But note, there is no ' persuading ' that student to accept intellectual values. Having already accepted his ends or values he necessarily has accepted the only means of attaining them, intellectual activity.

Regarding intellectual studies as a means rather than as an end to motivate them is not without its objections. Some, for instance, will readily agree to Dewey's analysis but think it only *apropos* when the instructor is lucky enough to catch the student engaged in some worthwhile activity. But what do you do when he is occupied only with athletics or with social activities on the campus? Deplorable as such limited interests may be, the fact none the less remains that you must start from where the student is. To start anywhere else is like the man on the street corner, when asked how to get to the post office, replied, " I know where it is but you can't get there from here ". If you accept the need for *acceptance* in motivation then you must start with currently *accepted* values even if they are limited in scope. But the chances are considerable that if you get to know your undergraduate in particular rather than in general you will find he has a larger assortment of interests than he may have immediately on display in the window. Perhaps he can be ' persuaded ' to accept others, but if not, why not start where he is?

A more serious objection is that which is concentrated at the present time in the resistance to the ' life adjustment ' theory of education. As the argument for the ' life adjustment ' theory is at least as old as Eliot's ' life career ' motive, so too are the objections. One of the most vigorous of Eliot's critics was Irving Babbitt.[7] His criticism was double-barrelled. On the one hand he objected to this kind of education as merely sentimental and on the other as unjustifiably utilitarian.

To motivate instruction by relating it to the student's ' life career ' was one aspect of Eliot's long crusade for the ' elective ' curriculum.

---

[7] Irving Babbitt.

To design the curriculum to satisfy individual needs, Babbitt thought overly sentimental. What he feared in selecting and organizing the curriculum on sentimental grounds was a lowering of its standards. Those favouring the tailoring of the curriculum to individual need were modern Sophists. To make man the measure of the curriculum must inevitably in the end make him the measure of achievement as well. His needs may not only demand less rigorous studies, but it may be too much to expect his abilities to match conventional standards. The result may be humanitarian, democratic, but its long-run impact on scholarship will be disastrous. And many a humanist agreed with Babbitt.

To motivate instruction by showing its utilitarian quality was also disastrous but in a different direction. The danger in learning spurred by the functional usefulness of the arts and sciences is that it may degenerate into a purely vocational motivation because, as seen in professional education, this is one of the most easily ignited fuels to fire the boilers of motivation. And what, we may inquire, is the objection to such combustible fuel? Certainly no one should object to-day that the vocational is servile, as did Newman. That might have been a justifiable criticism in centuries past, when some were free and some were slaves, when work was undignified because associated with the lowest classes of society. But since the political and economic revolutions of the late eighteenth century all men are free and all men work. Not only is work the dignified occupation of freemen to-day, but the increasing application of science to it has raised much of it from the empirical level of rule of thumb to that of technology. This introduction of scientific or intellectual content into work has given it a dignity never possessed before.

Not very different is the view taken by some that it is more dignified to regard intelligence as an end in the educative process rather than as a means. Perhaps this point of view arises in part from regarding means as menial. As a means, intelligence takes whatever value it has from the end to which it is a means. It is a reflected heat rather than a source of heat itself. Therefore, values which are values in themselves are superior. The defect in this theory of values is that it is next to impossible to compare them. Thus morality may also be an end in itself. Which, then, is more important, intellectual or moral education? This question is unanswerable unless there is some third value to which these can be subordinated and compared as means.

If there is a flaw in the vocational aim of education it must take its origin in something other than that vocation is servile or menial. Thorstein Veblen saw quite a different objection to the vocational influence in education in that it narrows the scope of learning and instruction.[8] The higher learning is concerned with broad, general principles. It seeks principles of the widest possible application. Yet, when these principles are applied they lose a measure of their universality by being applied to particular situations, to particular vocations or particular professions. Vocational and professional life must rest on sound principles, to be sure, but by their very nature they narrow and restrict the general or liberal arts and sciences on which they rest. Therefore one may reasonably be suspicious of the 'life career' or 'life adjustment' motivation of men like Eliot and Dewey.

If the danger of the 'life career' or 'life adjustment' motive runs the risk of being narrowed down to a vocational motive, so the vocational motive runs the risk of being further narrowed down to the motive to practise some particular art. Yet the concrete setting in which the practice of an art occurs is one of the most vivid motivators. The relation between theory and practice is so direct and clear-cut that there is hardly any problem to motivate study of the intellectual components which go into practice. Unfortunately the relation is clear and direct at the risk of being intellectually narrow and expedient.

Aristotle had some appreciation of this problem. He recommended, it will be remembered, that a well-bred youth should learn to play the flute but he cautioned against learning to play it too well. Of course, Aristotle's caution was well intentioned. He feared too great competence might liken a young gentleman to the artisan or even the slave. And to-day we can see that too much time spent on practice of an art foreshortens the scope of intellectual or theoretical education. But young gentlemen—and young ladies too to-day—have perverted Aristotle's advice by taking it all too literally. Campus mores caution against even too great excellence in intellectual studies! Academic indifference, thus, is a virtue, not a vice, and the 'gentleman's C' its badge of distinction.

Combining Motivations

How shall we resolve these difficulties in motivating intellectual studies? Roughly we have seen there are two major approaches. One is to treat them as ends and the other to treat them as means. Advantages and disadvantages attach to both. Since there are advantages to both, why not plan to use them both? For the small percentage of the student body that is attracted to liberal or general studies by their intrinsic merit, let us pose enjoyment of their treasures as the mainspring of their study. For the remainder let us employ intellectual studies as the means to a richer understanding of contemporary, even vocational or professional life. But above all let us not imply that the latter is intrinsically an inferior type of motivation! To do so asserts an intellectual snobbishness which betrays a bias all its own, the narrow gauge of the pedant.

---

[8] Thorstein Veblen, *The Higher Learning in America* (B. W. Huebsch, New York, 1918), Chap. 1.

Indeed, the real issue in motivating the higher learning is not whether higher studies are considered ends or means but how widely or narrowly, how generally or specifically, they are conceived. We may take two things pretty much for granted. In the first place we can readily agree that the value of the arts and sciences resides in the breadth of their outlook, the wide grasp of life they afford. They make man feel at home in a great variety of contexts. In the second place we may concede that motivation usually, although not always or necessarily, commences with the specific. It starts with commitments of specific students to specific situations.

Now, these two concessions or agreements taken together are not so opposed to each other as might appear at first glance. The words 'general' and 'specific' may seem antithetical, but they really complement each other in this educational setting. In other words, the point at which to commence instruction is the specific, and the place to conclude it is the general. If the instructor were to start with some limited situation in which the student is currently interested and never get beyond it, that would call for emphatic protest. But if the student gets to see that he cannot comprehend the immediate situation short of seeing it in its broader theoretical or intellectual context, no cause for protest should arise. Indeed, there should then be no complaint even if the point of origin of the lesson were in vocational or professional affairs. Even Robert Maynard Hutchins, who has dissented as vigorously as any from the vocationalism he sees implicit in the 'life career' or 'life adjustment' motives, concedes that "technology, though never to be employed as content, may quite properly be invoked as method in the higher learning". Our main point, in summary, is that *wide outcomes are not inconsistent with narrow beginnings*. Liberal and vocational or professional studies are not so sharply antithetical as conventionally thought. Seen as complementary, liberal or intellectual interests may catch fire from the combustible events of the workaday world.

Possible Non-Academic Roots of Anti-Intellectualism

So far we have tried to suggest how the academic world might mend its ways in order to overcome the accusation of anti-intellectualism among undergraduates. It may be, however, that the roots of the problem extend quite beyond the academic campus. It may be, for instance, that the sabotage of or indifference to intellectual interest is rooted in the American public itself. If so, it may take greater leverage than the foregoing analysis to extirpate it. There is an inertia about public attitudes that is enormous and not easily moved.

Anti-intellectualism in the United States is, of course, an old story. Currently it is manifest in suspicion of the 'egg-head'. Before the Second World War and during the Depression it centred in scepticism of 'brain-trusters'. In the nineteenth century we even had a 'know-nothing' party. In part this anti-intellectualism derives from the American frontier. There the practical man rather than the intellectual was in demand. But this statement must be subject to qualification. It would be a serious mistake to think the practical man on the frontier was not intelligent in his own way. He certainly had a shrewd, if not 'cultivated', intelligence. Perhaps the frontier had little occasion for the pursuit of intellectual interests as ends, but it made spectacular use of intelligence as a means of subjugating the natural resources of that vast domain.

Is it not a bit invidious, therefore, to say the frontier was anti-intellectual? Is there only one kind of intelligence that is intellectual, the kind that treats it as an end? The same invidious tendency is to be seen in those who criticize John Dewey, the leading pragmatist, as an anti-intellectual. Yet one of his principal works is *How We Think*.[9] Is he to be cast out beyond the pale of intellectuals merely because he thinks the role of intelligence is different from what they traditionally think?

Nevertheless, even with this defence of the American tradition, it cannot be denied that there are possible flaws in the American character which may be subtly conditioning the American attitude towards rigorous intellectual studies. Our high standard of living may unwittingly be softening our moral fibre. Thus we have a penchant for 'quick' results. 'Minute' rice, 'instant' coffee, and 'quick' cake mixes are evidence of the trend. We also have a penchant for the painless and effortless. We expect anaesthesia for dentistry, to 'eat as usual and lose ten pounds', to have the reinforcement of mechanical power to steer and brake our cars. In addition we have a 'get by' attitude. We make our cars as good as necessary to sell at a price. Children in the elementary grades are taught to write legibly enough to communicate rather than to aim for a 'fine hand'.

This motivation may not be a twin to the 'gentleman's C', but it certainly is cousin to it. Perhaps we expect to master intellectual studies 'quickly' and 'painlessly'. Perhaps we think we can 'get by' with no more effort than is represented by academic indifference. If so, we are doomed to disappointment. The truth is that " learning maketh a bloody entrance ". What will 'persuade' us or even 'force' us to *accept* this fact? Two things occur at the moment as capable of jarring our indifference or complacency if our pedagogical analysis should fail. One is an extended scarcity of jobs. There is no lack of incentive to come to grips with intellectual studies in countries like India and Japan, where there are more applicants than the higher institutions of learning can accept and where there are more graduates than there are jobs waiting. A second is Sputnik. Perhaps its advent has confronted us with the alternative of taking intellectual studies seriously or failing to survive. Much as we might hope that the international situation has not deteriorated to such an extent, we might none the less welcome this situation if only to remind students that " life is real, life is serious, things are not what they seem ".

---

[9] John Dewey, op. cit.

JOHN S. BRUBACHER.

CHAPTER NINE

Changing Aims and Objectives of the Universities in Latin America

AN attempt to define aims which are common to all the Universities of Latin America leads one to outline at the same time those of Universities anywhere in the world; to maintain the knowledge and culture of the past—to transmit it, and to popularize it through a mode of teaching of university quality, or else by means of extra-mural activities—to develop the means and instruments necessary to conserve, to protect, and to increase knowledge—to add to the common fund of culture and science through research and higher studies. As regards this last activity, Dr. Houssay is right when he writes that no other contribution is here necessary beyond that of the technical worker. For Luis Albert Sánchez, formerly Rector of San Marcos University, Lima (Peru), there should exist one aim, " to defend the knowledge and the culture of the past which has already been acquired", and such a defence must be effective, though it may face, according to Sánchez, what is in fact totalitarianism, hiding itself behind a screen of democratic protestation.

Roberto Agramonte, formerly Rector of the University of Havana (Cuba), takes into account not only already acquired knowledge, but thinks of the university as an institution dedicated to wisdom. He states that wisdom does not consist in knowing many things, or in having learnt a mass of data, or of being erudite, but rather in having a lively understanding of the nature of things, because it is possible to know much and to understand nothing. Wisdom is, for him, very fundamental. To be wise is to have lived and known a fund of knowledge and theory, together with an appreciation of the sources from which knowledge flows, so that knowledge and experience are closely joined. And to be wise is to know how to orientate oneself in the world of ideas and in the world of things. He who possesses wisdom possesses also a way of intuitively understanding the meaning of things. But it might also be said that wisdom implies an ethical attitude. It leads to an understanding of how best to choose the path of leading a man to inner peace, to the absence of internal contradiction in his being, to a fuller integration of his inner life. And one of the most important developments in our Latin-American universities to be found, especially where true and genuine teachers exist, is the gradual replacement of the accumulation of inert facts by wisdom of such a type.

In the universities which have undertaken genuine reforms, the attempt to define the aims to be pursued has always been given a place of first importance. In the discussions which took place in 1918 in Cordoba, and which were the starting-point of development in the Argentine—and the origin for all later Latin-American reform—the restatement of aims was quite fundamental. Alejandro Korn, the Argentinian thinker who promoted the reforms, had a deep respect for science but drew attention to its limits when he defended its aims. Korn stated that science contributes to our emancipation from the blind forces of nature "destined to serve us and not to bind us". He added that when science is converted into technology we do not necessarily progress unless we are prepared to advance towards the achievement of our economic freedom. But science is no more than a quantitative interpretation of reality, and is only one aspect of it. The university cannot be thought of apart from the culture it serves—nor can culture apart from education. So the reform of the university led in one way and another to genuine and broad educational activity.

The realism of the aims of our Latin-American universities depends, as anywhere in the world, on an atmosphere of liberty. We should remember that in the last years of the sixteenth century and all through the seventeenth century liberal thought, born in the English universities, was seen as essential to the mission of the university. It was true of the Scandinavian countries and where ecclesiastical influence was not too strong, as happened in France, because of the differences there in religious opinion. To some degree it was true even in Italy, where a rather worldly Church did not restrict university work. And in a Germany divided into many small states, those in power in many of them fascinated by the ideals of the Renaissance, were careful to protect and to cherish the instrument of thought, the university.

The truth is that the university must continually revise both its aims and its methods. It is like a frieze in continual movement, always being destroyed and yet reformed, creating itself afresh each moment. Precisely in this is to be found its grandeur and its weakness.

The university, whose original sentiment was that people of a like kind should group together to help each other's studies, plays a fundamental role in modern life—especially so in countries which are rapidly developing themselves—for it is the mould where the best qualities of the young are refined and strengthened. But the word 'youth' here is not to be understood in a biological sense. One is old when knowledge, science, and research seem arid and dead, one is young when such pursuits have about them an atmosphere of joy and achievement.

It cannot be denied that the Latin-American university is in a state of crisis, just as it is, though to a different degree, everywhere in the world. This indicates no more than that the objectives are no longer being well fulfilled or they are not related to the needs of our own epoch. What Gregorio Marañón said many years ago still holds true: "It is certain the university is being submerged, sharing the same guilt and the same responsibilities as those States which it served, rather than human culture." A revealing remark, which should be compared with the inquiry carried out by Alfredo Colmo, the Argentinian sociologist, on the effects of university education. He showed clearly that the great majority who had or who hold great cultural influence and who have effected the march of affairs were educated outside the university—Sarmiento, Mitre, Ameghino, and others. Marañón adds: "The real starting up of knowledge and experience has to be carried out by each individual outside the university. The student must be able to do it on his own account and through his own initiative. And one has to take into account the fact that he will have to get rid of a great number of bad habits which have been left behind as regards both ways of thought and methods of study through the influence of bad teachers."

The ultimate aim of the university is to promote a genuine national feeling and then to tie it closely to continental and to world ideals. As Unamuno said: "Development of love for one's own countryside is only fruitful and healthy when it goes together with love for the universal fatherland of mankind; from the conjunction of these two loves, each sensitive to the other, will be born a genuine patriotic love."

To know what each Latin-American country is capable of producing, and what are the sources of the wealth which we can exploit, is also one of the aims of our universities to-day. To investigate social conditions and to consider and plan solutions to social problems, to note and consider the tensions which exist between ethnic groups or social classes and to contribute to national cohesion, to lead young people to ideals which are genuinely American and democratic, to prepare each nation for political freedom.

The Latin-American university has responsibility for the improvement of democracy and responsibility for the unification of nations. The unity which in Europe has been a dream for centuries and a Utopia which led to so many imperialist ambitions has been drowned in a stormy sea of blood and desolation. But for America it is an historical reality and an ideal to be pursued. For General San Martín the fate of brother nations could not be separated from that of his own. "My fatherland is the whole of America," he said in a letter written in 1819.

Problems of University Administration

Those who look at everything from a European point of view often maintain that our universities, since they are within the Western orbit, should follow those of England, France, and Germany. And those who seek to follow the North American model to follow similar organizations. Yet our universities will not be able to accomplish aims which are truly national except as a response to the conditions which they meet and not through mere imitation. It is certain that Latin-American universities have their own characteristics, even though some of them need improvement, and more so in some countries than in others. For example, regarding general administration : there is the influence which comes from outside and that which comes from within. Furthermore, the general sweep of higher learning is not as homogeneous as might be thought at first sight. Some characteristics can easily be explained even though objections are raised to them. For instance, regarding the participation of students in university administration. Dr. Bernardo Houssay (Nobel Prizewinner), who teaches in the University of Buenos Aires, said a few days after the overthrow of Péron, at the beginning of December 1955 to be exact, that participation of students in the running of the administration of universities cannot be reconciled with the proper ideal of research. And this is true, but not always.

Juan Gómez Millas, Rector of the University of Chile, thinking of extreme forms commonly found when students exercise influence on the running of universities, and thinking too of the exaggeration of them, said: "Do not forget that in some universities young people who have been badly led have imposed by violence, norms and methods which they thought useful and justified because they have been themselves opposed by an authority which they thought blind and haughty. To-day the universities in which these things happened are garnering the harvest of these mistakes and violence, for the spiritual and intellectual life of these places of higher learning was paralysed in its very being and was powerless to intervene against superior forces. Lacking the strength of what should be the tradition of the university community, it was powerless to fight for the liberty and unity which it itself had destroyed, and for a mode of life which it had itself diminished and stifled." In truth, interest and worries having nothing to do with the life of the mind, and the house of the spirit, the temple towards which our glances should direct themselves, had been converted into a dead school, towards selfish professionalism without spirit and without vigour, unable to defend the true and creative liberty of the young.

The autonomy of the university is another of the great problems which arise in connexion with the general problems of administration.

This autonomy is not a recent victory. Back even under the Viceroys, our universities profited from the privileges of Salamanca and, except at first, there was very little restricton on their work. They may have been, and probably were, seed-beds of liberalism and, even of tendencies which lead to political independence. A creditable number of men who distinguished themselves in the wars of liberation came from the university cloisters. And the ordinary members of the university, and especially the students, took an active part in the political movements, taking up definite positions in the social conflicts. Its general outlook, according to Luis Alberto Sánchez, one of the best-known writers of Latin America, was liberal, anti-imperialist, pre-democratic, anti-totalitarian. Nevertheless, even the State fell into the hands of dictators. As also the university received the greater part of its finance from ordinary national taxation, there is here apparent an antithesis: dependence as regards finance, independence as regards internal policy; freedom as regards allocation of the funds proceeding from the national treasury as well as from the students' fees.

The word autonomy sums up the formula according to which a Latin-American university endeavours to elude pressures coming from the executive in spite of being part of the State and even depending directly upon it, as is the case in Chile. The law in that country names the President of the Republic as patron of the university whose signature is needed when the Rector, deans, and professors are appointed. Nevertheless, in fact, the patron does not sign unless the university council proposes and never changes anything in those proposals.

But the chief results of autonomy have to do with the general atmosphere of freedom of thought and of speech, freedom to teach, freedom of research, freedom to found associations and groups. In general, except in obvious cases of sheer dictatorship, the government abstains from intervening in anything that happens within the university. Yet one should not lose sight of the fact that autonomy created during the course of history for ends which are noble and constructive loses authority, prestige, and importance when life in the university is empty or tainted by error. Autonomy can be utilized in the bureaucratic manner for the mutual protection of members of *camarillas*. It may be that some universities display little interest in the professional competence of their teachers, and that they may appoint persons of very poor quality. There are occasions when the competence becomes merely a deplorable joke or a ridiculous comedy. Sometimes, too, the student bodies themselves, in spite of their zeal for reform, join hands with ignoramuses, with mere routine, and with the futile habits which lead to completely sterile lectures, their aims being simply to pass exams in which they are expected to write lists of concepts which can be easily committed to memory and which can never be applied to life. There are many students who seek no more than to obtain diplomas and degrees without making any kind of effort. There are many occasions where students, desirous of 'reform', share the government of the university on equal terms with the professors and the graduates, that is, cases where the professors themselves have only a third part of the voting power. There the students vote by the side of their professors on resolutions which are highly complex or on the most thorny problems touching upon organization and administration. The appointment of professors and the admission of students cannot, under such conditions, avoid factors of a political kind in which the various parties and groups are in conflict whatever the issue, and the most genuine interests of the university are ignored. This is so since a politician in general is not a man of firm personality, detached, disinterested, and honest, neither is he a professional man nor a worthy scientist. Politics, from the extreme right to the extreme left, are always engaged in as a way of compensating for personal deficiencies. Genuine and fruitful university autonomy implies, instead, a professoriate of honest and disinterested people.

A good point in university reform came from the discovery that the complete and permanent security of the holders of chairs, without any kind of checks, had produced a professorial class which never engaged in study or research, which simply repeated the same lectures, following a teaching routine at total variance with the proper aims of higher education. As a result there arose a demand that chairs should be put up for election every five years. It was understood that any professor who in fact promoted study and research in his own field would be exempt from any recall or re-examination of his credentials. There is no lack of universities which give a worthy example of the proper use of autonomy, and who deepen and enlarge it. They have selected their professors carefully, have adjusted the responsibilities and the exercise of rights among their students, and somehow humanized the work in the laboratory and the classroom in accordance with human development.

It is certain that the university has greater strength and unity when it depends chiefly upon itself. Autonomy, properly used, protects aims and objectives because then it is the instrument through which knowledge is investigated and handed on, and knowledge is truth. Truth itself needs—if it is to rise ever fruitful, if it is to impose itself, if it is to spread—an atmosphere of freedom.

Nevertheless, the fact that distinguished students have taken part in university administration has represented and continues to represent a moving force which removes the traditional and arid inertia sometimes found among academic people. The participation of exceptional students may be a dynamic factor, and it is equally certain that every now and again the 'free' student—of the kind which in the Argentine attends one hour a week for what is called the hour of practical work—one who reveals how much latent potential there is in self-education. Indeed, the greatest conquests of a learner are due to the fact that he keenly anticipates the struggle which leads to freedom and knowledge. Compared with the ordinary, regular student, who may have a low level of ability, such 'free' students, whose only connexion with the university is to sit for its examinations, often stand out through the vigour and lucidity of their thought.

In any case the university should be a community of professors and students working and studying together. Otherwise, any University which gives way to fear, to the pressure of students who seek only to work as little as possible, is one which is satisfied with mere labels. It denies the aim it claims to pursue.

The autonomy as well as the mode of administration of our Universities in Latin America is closely connected with the old discussion regarding politics and the university. No one can doubt there are two kinds of politics; the petty kind which becomes an occupation for bold money seekers, and the larger kind which arises from a general view and understanding of national problems, a kind which seeks scientific and technical solution. Should the university be independent at all costs of the claims of those greater, more transcendental, politics? Is it not one of the objectives of higher education to prepare the education of those who will direct public life? If the petty politicians reserve to themselves the right to play politics, who then will assume the general direction of affairs?

One argument seems obviously true. We should teach individuals to think correctly and to feel the importance of the greater politics as impersonal and objective problems, and we should encourage this view all the way through school life from the primary stage to the university. May it not be said that the elementary school and the university itself are only the two extreme poles of what is popularly called the education of the people?

In the government and administration of the university there are problems of extreme difficulty. For example, there is that of preserving some measure of unity in the forces that form men, citizens, and workers. Correct policy would link the unity of the college with the technical secondary school.

The Meaning of University Reform

Up to 1918 the universities of Latin America tended in their policies to follow paths which came down directly from the organization under the Viceroys, although a few appeared to have more modern features. Such were Chile (1843), Mexico (1910), La Plata, and so on. In general, however, their outlook was too neo-idealistic, and entirely inappropriate to the realities of the new continent. Hence they lacked the necessary direction and a dynamic policy. University reform, moreover, could not merely be the outcome of social, cultural, and political change.

We have already mentioned that the whole reform movement was born in Cordoba (the Argentine) in 1918 and influenced the whole of Latin America. Everywhere reformers, as was customary, tended to look for Swiss, French, Italian, and North American models to copy. The whole movement seemed to be bold and generous, it complained of certain conservative forces, and wished for novelty and change. It was certainly not directed against the whole of the old routine machine. All the time, however, it tended to create a consciousness of responsibility and duty. In the universities where banners of reform were raised with the object, mainly, of reducing the amount of work and effort exacted from the students, there were distortions, and it was necessary after a time to return to the starting-point. The reforms attempted, too, to develop intellectual and spiritual independence by defending and affirming the value of an intellectual life and of the humane values. There was a demand to create a type of *American* mankind because it was the prevalent fashion of attempting to ape Europe that prevents us from being ourselves, unique individuals.

It goes without saying that in all the objectives of a reform movement cannot be achieved in a moment. Nor are its victories likely to last for ever. Nor can things be changed by proclamations and speeches, but rather through attitudes and actions.

One of the most valuable modern features of a university is the promotion of special institutions and laboratories of research as well as of seminars and tutorial groups. The idea is to go beyond the old and traditional system of groups of students in front of academic chairs from which lectures are delivered. It is better realized than formerly that a critical and creative spirit should be specially evoked in students. Their individual initiative, their personal thought and their work, the way in which they attempt themselves to lay plans and to develop schemes, are all seen as part of a necessary basis for the education of human beings—an education which cannot be attained by simply accumulating factual knowledge. One also has to avoid undue degree of specialization where this consists of a narrow professional preparation, restricted research, or the mere learning of technical processes. The modern university needs not only a proper material foundation but also a moral one. It must be the bastion for the defence of the spirit against a miserably practical spirit which might lead to the admiration of the lowest of all gods—mere success, obtained by whatever means. As for the professors, where undue specialization obtains they may strengthen the national economy but they seldom reinforce the moral conscience. Our best universities strive to reach aims which are complete and generous as well as connected one to the other. Hence they must attempt to realize reforms which have been thought out in detail and yet are unifying in their effect.

Professional Preparation

In Latin America during the last fifteen or twenty years the number of students and professors has increased greatly. In some countries there are now three, four, or even five times as many as before the war (Bolivia, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and Dominica). In others the increase has been smaller (Brazil, Costa Rica, Mexico, and Paraguay). This growth in numbers always goes with an increase in special branches and specialized techniques, as well as with the growth of the financial support given by the State.

Medical studies profit from the general liking for them by all Latin Americans. Only in Bolivia, Costa Rica, Ecuador, Panama, Puerto Rico, and Uruguay is the study of law or social science more important in terms of numbers. As for the subjects grouped under the humanities, apart from those included under the title of the Science of Education, they are gradually being abandoned except in Costa Rica, Panama, and Puerto Rico. The exact sciences—biology, physics, and chemistry; and one might add pharmacy—attract an ever greater number of students, especially in the Argentine, Brazil, Honduras, and Peru.

During the last ten years so-called political science and economics seem to have powerfully attracted many students. The new generation, it seems, flocks to them altogether, so that they are studied by about a third of our students. As for the faculties and schools of engineering, they are in fact growing, but less so than in Eastern and Central Europe and in the U.S.A. In countries where industrialization has been recently introduced the rate of growth is larger than elsewhere. As for agriculture and veterinary science, the number of students remains more or less stationary.

Some of our universities attempt to make professional training more valuable by attempting to develop through it social feeling, thus attempting to minimize the too simple view that success is to be measured merely by the accumulation of money. Vocational guidance has been started in the most advanced and progressive of our universities, but it must be admitted that as a general rule, perhaps simply because of personal frustration or social anxiety, choice of profession is influenced more by caprice, the economic position of the parents, or a simple desire for social prestige.

Some of the faculties of philosophy as well as the schools of education have made a contribution to our general understanding of the vocational problem by undertaking research into vocational guidance. These maintain lively contact with the various types of schools, realizing full well that the solution of the complex problems in this area cannot be sought only at the level of the university. On the other hand, the schools of education very frequently attempt so to organize their work as to be able to contribute to the promotion of a generous state of mind in each nation among that Nation of Nations called Latin America.

For better or for worse our universities, nevertheless, are the forcing-grounds of *élites*, whether in the world of thought or of technology. The fact that the University of Buenos Aires had 75,000 students in 1956, while the University of San José of Costa Rica had hardly 1,500, depends upon the differences of population in those two Republics, and not on any difference in cultural level. It does not mean, however, that either can be absolved from its function of preparing the specialized leaders of the country. Everywhere our institutions of higher learning are faced with a problem which even ten years ago would have appeared laughable—it is the irresistible growth in numbers.

It is evident that all Latin-American countries stand in great need of properly qualified technicians and technologists—that is of doctors, lawyers, architects, agriculturists, surveyors, geologists, geographers, economists, pharmacists, dentists, educators, chemists, historians, philosophers, statisticians, sociologists, specialists in literature, mathematicians, veterinary scientists, and so forth. In every country there is a tremendous shortage of such people. They are necessary in all fields of operation. We badly need technicians who, making proper use of science as well as of agricultural resources, will tackle with realism national and international problems. One uses the word 'international' because the whole continent is affected by the weakness of nations which are backward in one or more ways. We must not lose sight of the fact that the development of the continent has been very uneven, the whole area looks like a mosaic. In some parts one lives in the twentieth century; elsewhere development lags by a hundred or even two hundred years.

Our universities must prepare by providing training, in a great variety of professions, men of thought and of action, experts in making plans and in bringing them to fruition. We lack men capable of the kind of thinking which arises straight out of reality and of nature. We look to the kind of practical man who knows immediately how to meet problems, or to correct errors because he sees clearly what is needed and he knows how to organize his thinking.

Many universities attempt, in many of their schools, to provide teaching of a general and cultural kind; the aim is to reinforce the knowledge of science and technology through human understanding of the human implications of the problems. The point here is not merely an attempt to inject a little old-fashioned humanism into a technological course, but to aid the clear perception of a present-day problem of modern man. One thinks here of the general education of the young university students and of what can be done to enlighten, pacify, and ennoble a world which is in a serious crisis.

One last point to be noted here: one feels and regrets the almost complete absence of any attempt to consider the possibilities and limits of the occupational opportunities in each country when considering industrial and cultural development. Yet only from such studies could one organize properly the recruitment and training of the right number of candidates for each profession.

Other University Problems

As regards the financial aspect, a remarkable characteristic of Latin-American universities is the fact that nowhere are fees charged for higher education, but on the other hand general opinion everywhere holds that parents or guardians ought to collaborate with the university in arranging for students a system of aid which would benefit them in every aspect of daily life. Through registration fees there should be set up funds which could be entirely devoted to the provision of collective aid. This tradition arouses both in the young and in their parents a consciousness of collective aid. In this way, those with favourable economic resources would contribute to the community whatever may be necessary to make it possible for others who lack such material resources and are yet desirous of studying and capable of profiting therefrom to study. The money brought in by the registration fees is used to some extent to provide services such as medical and dental treatment, board and lodging for young people coming from the country, rest houses and holiday homes, aid towards foreign travel on either a group or an individual basis, on sport and athletics, the grant of scholarships or bursaries, studies in universities abroad for two or more years, special prizes, and so on.

Private universities, which are usually Roman Catholic, can count upon special gifts or grants. In the State-supported universities, the increase of the funds tends to go hand in hand with the increase in the monetary grants given by the Republics. A few universities tend to supplement their economic and financial autonomy by special taxes. In any case, everywhere it is the whole of the people who support the universities.

Typical of nearly all Latin-American universities is the so-called 'University City'. The first of these was that of Concepción (Chile), semi-official in type. There followed the University Cities of Bogotá, Panama, Quito, Mexico, Caracas. In Havana the 'Colina' was from the very beginning a City and so, too, to a large degree is La Plata (the Argentine). At the moment there is to be raised a City in Santiago (Chile). The enormous building in La Paz can in itself be considered a University City, and the same can be said of Puerto Rico.

Perhaps after all, however, the most fundamental of the problems of our universities is to reconcile the idea of knowledge or wisdom with the newly erected hierarchy of human values. It may well be that to-day we are nearer, in our conception of wisdom, to the old Greek notion of Sophos, which attempted to establish harmony between will, duty, and knowledge. A university education which is isolated and truncated does not allow us to reach so important an aim. We must apply the criterion of unity when evaluating the total education of mankind, and we must consider it as proceeding all the way from the primary school to the university. In consequence of this we must suspect all the notions of reforming education at any particular level when such levels are thought of as separate compartments: reforms of a familiar kind which are retained into proposals for curriculum reform in secondary schools where these are isolated from the totality of the process.

And as for the admission of students to higher education, we must avoid that false democratic sentiment which favours the admission of poorly qualified students who seek only a degree or diploma. It is vital for modern society that there should be a vertical renewal of social classes. Such fresh vitality and strength can be given to all levels of society when the university and institutions of higher education fulfil the supreme function of a democratic State by recruiting the best wherever they may be found, even though they may be children of herdsmen or roadmenders, provided they possess ability and intelligence as well as creative energy and human qualities.

Leadership of University Reform

Risieri Frondizi, Rector of the University of Buenos Aires, recently published a pamphlet, *The Mission of the University*,[1] in which he put forward a number of reflections regarding the most urgent problems of the universities in the Argentine. We are going to refer only to what we consider the most significant ideas discussed within the theme which we have been developing. In one section Dr. Frondizi says: "The university graduate in the Argentine has no culture because he knows too many things. The weight of the data he has accumulated, their classification and ramification and their study oppress him in such a way as to prevent him from acting spontaneously on his own. Max Scheler said rightly that culture is what remains when nothing remains. The Argentine graduate knows outwardly a great number of things, but they do not help him to live. His whole life draws inspiration from commonplaces, hence his bad taste. His sheeplike following of political leaders, the banality of his own ideas, his exaggerated carefulness in superficial things—encased in rules of conduct, in appearances—and from this, too, springs his snobbishness which is no more than a compensation for an internal void; his contempt for what is truly Argentinian and his exalted admiration for the Rue de la Paix, the Via Vittorio Veneta, and Fifth Avenue."

---

[1] Risieri Frondizi, *La Universidad y sus Misiones* (Universidad Nacional del Litoral, Santa Fé, Argentina, 1958), p. 7.

Seldom has an Argentinian put forward a criticism at once so strong and so frank against his own university, one in which, moreover, he exercises a function that is undoubtedly the most important university post in the country. Yet we know that that particular paragraph is only a pale reflection of the great crisis through which the Argentinian universities are now passing. Let us not lose sight of the fact that the Argentine remains a country which has led the whole university reform of Latin America. To establish this one has only to remember that it was in the State of Cordoba in 1918 that the declaration of aims was made, a declaration which was never seriously promoted nor achieved. We do not agree with those who tend to see in certain social conditions an explanation of the sad state of the Argentinian universities: simply to say that the Argentine graduate is uncultured because he knows too many things is a senseless statement, since knowledge and culture have to be harmoniously related in university life. Culture cannot be built up without scientific and technical knowledge, at least in our day. On the other hand, the university must attempt to find the right relation between the quality and the quantity of what is learnt. A knowledge of fact as well as of the various branches of science and technology are not out of place in its teaching. What has to be found is the necessary data and theories. The quotation from Scheler is a strange one, since it is no more than a play on words. What is left when nothing is left? The answer is obvious—nothing is nothing. A mere vacuum is not an aim. It does not provide an hierarchy of values nor the will to action, nor does it describe the qualities of the modern mind which has to deal with the complex problems of life in our times. If we agree that the universities—and with them culture and knowledge, science and technology—cannot exist without human dignity and freedom, we affirm at the same time, and this for the whole of Latin America, that human dignity urgently needs to be sustained by ability and attainment.

Individual and collective enslavement comes from the under-development of culture and knowledge; in other words, through failure of a power to act in a manner relevant to the continual growing demands of the moment. We do not believe that the Argentinian graduate knows a great number of things and that this knowledge is a useless one for life. Our universities must attempt to bring to him the methods of education and then to apply them in such a way that as the years go by the students advance and progress in their command of knowledge and in their ability to apply it. We do not overlook the fact, in spite of what Dr. Frondizi thinks, that the universities prepare people for life rather than for culture and science. But they prepare them in the worse possible manner. They train individuals who try to avoid real effort, who are greedy and conventional, who at all times try to attain an easy success, and who are well satisfied with society as it exists to-day, where there is an almost absolute lack of opportunity for really high ability but which provides easily attained success for those of average capacity, especially if their moral outlook is mediocre. On the other hand the real men of science, the able technicians and the graduates in the various areas of culture—and such people are sometimes to be found in universities, thanks to their own efforts and to the help of outstanding professors—these are condemned to failure because they maintain an attitude of dignity and strict honesty, and because they refuse to submit to the bureaucrats who are in truth the rulers of all under-developed countries, politics have become an industry. We disagree with Dr. Frondizi especially where he speaks of commonplaces; life is made up of an infinity of commonplaces to which we do not usually attribute enough importance, but on the other hand, we do agree with him when he speaks of the exaggerated attention given to outward appearances, because in so doing we are continuing some aspects of our social life, especially those which turn aside all proposals that are implied by reform.

Formalism

In another chapter of his pamphlet, Dr. Frondizi speaks of " A Life of Formulae, a Deadly Sin ". He says: " The persistence of the fact that profound ills continue to exist in the Argentinian universities must make us doubt the efficacy of the remedies which have been applied up to now. In spite of their varied nature these remedies have one fundamental error in common; they have attempted to cut out deeply rooted bad features in our university customs by legal or administrative means." The idea of correcting endemic sickness or of reconstructing a university by decree is a fallacy which is common among graduates. For many students the fundamental question is seen as one which is connected with a tri-partite and partisan form of administration. A few professors, amongst whom we must unhappily include some who are in charge of universities, believe the existing situation can be corrected by the help of a good constitution and by the approval of new curricula and syllabuses.

Even though the University of Buenos Aires rector levels strong criticism against formalism (we would ourselves prefer the word formulae-ism) with a calm dignity worthy of applause, we should yet note, since he is the highest authority of the greatest Argentinian university, the extraordinary importance he has attributed to the reform of university status and legal change. We do not deny that the right kind of educational legislation is needed everywhere in the world, but we would urge that the greatest fault of all lies in the lack of courage and persistent effort to apply the laws and regulations so that we might try, so to speak, by experiment on how far the form would be the most suitable. In addition to the right kind of legislation one should also, of course, attempt to tackle the general problems of university teaching so as to try to find out which of the teachers are capable of discharging their task as well as to establish the right kind of selection tests and examinations.

It is well known that in the Argentine universities there is a tripartite administration composed of representatives of the students, of the graduates, and of the teachers. No one has yet attempted to think thoroughly and deeply and to state courageously whether this form of administration does indeed favour the right kind of experiment. The universities of North America and Europe do not share the government of their institutions either with the students or with the graduates. Are the students, even the best of them, sufficiently mature to discuss and to vote on the measures which regulate the daily work of their universities?

What has in fact happened makes one see that university students will only in very rare cases defend the true interests of their own body, largely because they are not particularly interested in the continuing life of the university, but rather in their own personal problems. The students participate in the administration only as the instrument of little political parties, of *camarillas*, or of groups of professors whom they serve solely to further their own personal interests. A sure proof of this assertion is the fact that students tolerate the activity of a large number of ignorant and inept professors and even resist the work of professors of high ability. What they seek, and here we would like to state a sorry and painful truth, is to pass their examinations in the easiest possible way, leaving on one side all the work that would be needed to reveal the existence of great gifts and without going deeply into real problems to which genuine solutions could be proposed. Often one hears talk of students' 'rights', by which may be meant simply the avoidance of duties or admission to the university without any particular requirement and the granting of degrees to whose who have made no effort. Under the name of reform, one often finds remedies which are likely to maintain this state of things, even to their extension, which they label 'more facilities for students'. More advanced work is poorly supported, seminars and discussion classes are always deserted. Lectures which are given by foreign professors or by intellectuals not teaching at the university gather the same heterogeneous crowd of people who listen to every subject discussed without ever formulating a question or criticism.

As for the faculty itself this, like the student body, is not recruited by rigorous and careful selection of the best fitted, but through a combination of little power groups, who carry out among themselves a subterranean struggle, only occasionally agreeing to form a pact of non-aggression. The higher offices of the university are elected by secret vote, in contrast to what happens in other Latin-American Universities, where the vote is direct. The common denominator of a tripartite mode of administration is the obtaining of jobs; that is to say an administration lacking in personality or professional qualities and simply saturated with personal ambition.

Does a situation of this kind justify the autonomy of the university? In truth, instead of a dictator who would share out posts according to his own whim, one meets the arbitrary despotism of small groups, although we hope it will be clear to the reader that there are honourable exceptions to what has been said.

Elsewhere in his pamphlet Risieri Frondizi says: "The proximity of the examinations seems to change the appearance of the university. During the course the student has kept a passive attitude. The examinations, however, are converted into the central pivot of the course. It almost seems as if the professors do no more than prepare their pupils for them." These words are so clearly formulated that they need no commentary. They reflect the scientific and technical backwardness of the Argentine university. Again Dr. Frondizi formulates the solution to the crisis: "What needs to be changed is the attitude of professors and students towards scientific investigation and cultural life; certain professors must be removed, and if there are none in the country to replace them, foreign professors of recognized competence must be appointed in their place."

But what we have said leads us to think that neither in the Argentine nor anywhere else can a fundamental change be made simply by dismissing a few professors. When the illness is a grave one, one would have to change a large number of professors and continually improve the capacity and qualifications of those who would remain. What could be done that would be really useful by foreign professors working under contract, dispersed in large institutions, tossed hither and thither in the various sections with rare opportunities of meeting each other, and who would be quickly enveloped in the petty concerns of the environment in which they work?

In any case the solution proposed by Dr. Frondizi reveals a very grave, if not hopeless situation. When in a country which has done its best to isolate itself from other Latin-American countries and in which a hostile and xenophobic nationalism has been an obstacle to friendly relations with other peoples, one must take into account the fact that the existing situation is not a transient one and cannot be improved simply by one artifice or another. Dr. Frondizi has been discharging the duties of rector of the University of Buenos Aires for several months, and yet none of the measures so frankly and bravely proposed in his pamphlet—a pamphlet which is itself brilliantly descriptive of the state of crisis through which the Argentinian university is passing—have yet been introduced into that University.

JULIO LARREA.

CHAPTER TEN

The Influence of Communism in Yugoslavia

THE progress achieved by man in the field of science and technology in the last decade is remarkable as regards the quantity of new knowledge acquired. But in quality it is far more remarkable. This manifests itself in present-day views and conceptions about matter, its manifestations in nature, and in the application of new achievements in the field of fundamental science. In addition, however, it is also seen in the changed and novel opinions about society, and the place and role of the individual in it. Briefly, in all fields of human activity the influence of present-day progress is felt; everywhere changes are taking place. New solutions are being sought and the unsuitability of old formulas is evident. Often the aim and the purpose as well as the structure of some social institutions are changed. No wonder, then, that the universities, as institutions which have made a considerable contribution to present achievements, realize the importance of all this and consider it their task to make it possible for young people to improve on and advance the inheritance put into their hands. Their duty is not only to prepare good specialists who love and are well qualified in their profession, but also to educate people who are deeply humane and who will use their knowledge in the welfare of mankind. To-day, when man has acquired a mastery of knowledge at such a high level, it is more important than ever to bring into harmony his scientific, professional, and human qualities. The problem of education at all university levels concerns not only the organization, content, and the relations between events, but above all it is one of providing new, modern treatment of scientific and universal social problems.

In this general move in search of new solutions some small countries take a special place. Up to World War II these countries were underdeveloped. Conditions of political and economic subjection and exploitation existed. For this reason they were unable to reach a stage of development comparable to the general development taking place in other countries. When released from this pressure during World War II, and with the further possibility of free and independent development, with a place in the world of other communities, they were faced on the one hand with an inheritance of under-development and backwardness, and, on the other, with problems that had to be solved at the level of developed countries. In a word, they had to bridge, in a comparatively short period, a gap created over several decades. Their social and political consciousness and the possession of material goods made it possible to bridge this gulf and to quicken the process of development.

In their development the conditions of these countries created a number of special problems and gave rise to solutions, neither of which are to be found in countries whose developments in the same field have been more tranquil. Very often these problems are not new and may seem insignificant from the point of view of developed countries; but because they have arisen under special circumstances, the manner in which they have been solved may be of some interest to other countries too. Some knowledge of these problems and their solutions is worth while in order to see how the people in these countries have fought and struggled in order to develop their community and contribute to human progress in general. For this reason 'small' nations should be considered as equals and their contributions recognized. This is of special significance to-day. Contemporary man has reached such a high level of achievement, power, and strength that he can change nature; yet he often seems inclined to use these achievements for the destruction rather than for the well-being of mankind.

At this moment the greatest efforts are necessary if progress is to be made towards the establishment of a full understanding of, and respect for, all the efforts and contributions made by every nation to the general progress and development of mankind.

The Historical Background and its Heritage

This article surveys the development and the problems of the universities in Yugoslavia. Through knowing something of the universities the reader will learn of the efforts made by a small country to fight against under-development and backwardness. At the same time also it is fighting to establish relations and conditions of life which will ensure everybody a life worthy of man.

It is not my intention to survey the whole history of university development in Yugoslavia. Information about it can be found in various publications and from statistical data. I want to indicate only some more important elements in this development, because without them it would not be possible either to get a real picture of or to understand the problems which arise to-day.

The oldest university centres in Yugoslavia are Ljubljana, Zagreb, and Belgrade. The origins of their work, that is to say, in the schools which were the forerunners of the present-day universities, date from the sixteenth and seventeenth centuries. The purpose of these schools were in accordance with the social needs of the time. Their aim was to provide the knowledge necessary for the lay or ecclesiastical professions. Law, philosophy, and theology were the disciplines taught and studied. In the present-day sense the universities date from the second half of the nineteenth century. At that time the philosophical faculty in Belgrade (1863) and Zagreb (1875) began to function. During the early years of the twentieth century other faculties began to develop.

All these faculties were, in the first place, teaching institutions; scientific work was more or less left to individual initiative and interest. The consequence of this development of separate faculties, primarily for the purpose of teaching, was the formation of a number of parallel teaching units. They remained separate not only in as far as teaching was concerned, but when research work began to develop they remained isolated from each other.

Throughout the whole period of their existence, from their foundation up to the end of World War II, the individual faculties were unable to develop to the same extent as faculties in other countries. The reason was that in order to make economies in time and social economies generally, reliance and, indeed, dependence were placed on other countries. These dominated the universities from the general, social, and economic viewpoints.

Although the universities did not develop scientific research to any great extent during this period, some scholars and scientists became known outside the boundaries of our country. At that time the universities played an important part in public life. There a young generation of intellectuals was being formed. These young people were the first representatives of progressive thought; a considerable and growing resistance against all the negative features of the society of the time began to develop.

The structure of the faculties of that period, their plans and programmes, their organization and method of work were static. While, after World War I, other countries developed and progressed rapidly, thus making necessary more and more specialists, so that faculty studies were adapted to these requirements, our faculties did not develop for the simple reason that the needs of the time did not make it necessary. When foreign companies needed experts, they were regularly brought in from abroad.

Under these circumstances, in scientific work and teaching the majority of university professors became very narrow-minded as regards the necessary qualifications of young people who might be capable of replacing them in scientific work and in teaching.

The heritage which remains in present-day Yugoslavia in the field of universities has some characteristics which must be taken into account when speaking about the problems we come across in the universities to-day.

These features are:

(*a*) insufficiently developed scientific research;

(*b*) the dispersion of institutions of the same kind in various faculties,

(*c*) undeveloped faculties as a consequence of the undeveloped character of national industry and various other social activities.

World War II Developments

Further problems arose as the consequence of World War II. The occupation of the country and devastation caused by the fascists did not spare the universities either. Thus the already inadequate means of the universities were either completely destroyed, as in the case of the University of Belgrade, or in part, as in Zagreb and Ljubljana.

After the liberation in 1945, fundamental changes in the country brought about changes in social, political, and economic life. Energetic action to remove illiteracy, to improve the general cultural level of the whole community, to build up our own industry, to provide necessary sources of energy, to improve agriculture, as well as to develop technical and scientific work, was of primary importance. The realization of these aims required (and is still requiring) special personnel. The lack of expert engineers, agronomists, doctors, teachers, economists, and lawyers was immediately felt. In no single branch was the number of special personnel even approximately sufficient.

New facilities for matriculation (stimulated especially by scholarships) made the number of students rise quickly after the war. The number is still rising. To meet the demands for university training, buildings were enlarged and new universities were founded in Skopje and Sarajevo. Special faculties were established in Zadar and Rijeka.

In 1939 the total number of faculties was 20, in 1958 it was 52. The number of students has increased considerably. Taking the rate as 100 in 1939, there were 365 in 1958. The greatest numbers of students go into the Technical Faculties, into the Faculty of Arts and Sciences, and into the Medical Faculties. To every 100,000 inhabitants there are 350 students.

Naturally, the number of students who take their degree is increasing too. Before the war the number was about 1,580 a year, in 1954 it was 6,011, and in 1956 the number rose to 6,569. As conditions of study become more settled this number will grow continuously and steadily.

The following data will show how this is reflected in the individual faculties. In the Medical Faculty 4,055 students took their degrees in the twenty-five years before the war, and 4,965 in the Technical Faculty. During the twelve years after the war the total number was 7,476 in the Medical, and 9,338 in the Technical Faculty.

Although the number of students taking their degrees after the war is great, studies in general are not satisfactory as regards the speed with which they are successfully terminated. The reason for this state of affairs will be clear in the light of discussion.

The following factors are responsible for the constant increase in the number of students:

(1) University schooling is free.

(2) There are various possibilities for students to receive scholarships: from the local authorities, from industry, and from the universities themselves.

(3) During their study a great number of students receive a special allowance; it is paid to parents who have no extra income besides their regular monthly wages.

(4) Matriculation from a variety of technical schools to the appropriate faculties is also possible.

(5) With the development of eight-year compulsory education and the growing network of technical schools, the number of young people with secondary education is increasing, and consequently there is also an increase in the number of those who continue their studies at the universities.

Administration

When speaking of the universities in Yugoslavia, we should also say something about the system of social management introduced in 1954. It is too early to make a definite assessment of how this system of management works, but the results achieved so far show that it has made it possible to tackle successfully a number of important problems in the work of the universities.

What does social management mean and what is it in fact?

The University Act lays down that the universities and faculties are autonomous institutions based on the principles of social management. By social management we understand a system of government in which the governing body consists not only of representatives of the university but also of citizens, and delegates from social organizations. All the state functions executed by the Republican Board of Education before the passing of the University Act have now been taken over by the governing body of the universities and faculties themselves. There is a University Council of the university and a Faculty Council of the faculties which is the body of social management. Besides these social bodies the universities and faculties have respectively a university or faculty administration composed of the professors, with a dean at the head. An annual university and faculty conference of professors and representatives of the students is held. The conference deals with fundamental problems, problems of study, the student health, conditions of life, and so on. Through their representatives, students also take part in the board of social management.

In order to establish and maintain collaboration between all the universities, the Union of Yugoslav Universities was established in 1957. This was done with the object of treating problems of common interest, of integrating the activities of the universities, and bringing about an exchange of experiences. The Union gives its opinion and makes suggestions to the appropriate authorities on various questions of interest for all universities. It co-operates also with international university organizations. The plenary session has thirty-six members, five from each university. Inter-facultative conferences of the representatives of the same faculty also contribute to mutual collaboration.

Financial support for the universities is ensured through the regular budget of the Republics. However, a number of faculty institutes do research work for industry and receive financial aid for this work from the industries they work for.

Features of University Development and Consequential Problems

It has already been pointed out that, after liberation, Yugoslavia turned her attention towards building up the country and raising it to the level of other progressive modern countries. This was made possible since, among other things, certain necessary conditions existed—for example, her natural resources and her important geographical position as the centre of communication between the countries of the West and those of the Near and Far East. This policy was also determined by another factor, which at first seems independent, namely, the aim of our community was to raise the general cultural and educational levels of the masses. To realize this in terms of contemporary standards without the aid of modern methods of production and a modern industrial organization, is impossible.

As the various branches of industry developed, the demand for technical personnel of various kinds and capabilities increased; the demand ranged from experts in the routine work of a factory to specialists capable of solving problems in production. The situation was also the same in other branches of economic and social activity. These needs made necessary a greater number of students. It was possible to meet the demands because there were young people who were able and desired to study.

The great and rapid increase in the number of students, the opening of new faculties, and the demand for various specialists led to a rapid growth in the number of subjects and in smaller special groups of subjects. The process other countries had gone through during the period between the two wars was taking place. These divisions led to new subjects and new examinations, and consequently courses of study became more difficult and the students were overburdened with work.

Another consequence of this state of affairs manifested itself in the shortage of teaching staff, and in the overburdening of these teachers. As it is impossible to find all the regular teachers needed, we are obliged to engage a great number of extra-mural lecturers. Some of them are regular professors in other faculties, and some are specialists from industry and other branches of production. They all have the necessary qualifications for university teaching.

The faculties were still developing primarily as teaching institutions, and consequently the previous process, namely the formation of the same teaching unit in two, three, or more faculties, continued. This also occurred in the faculties of the fundamental and of the applied sciences.

The demand for scientific research at the universities became more and more urgent. But because of their history and their lack of equipment and personnel, the universities were unable to meet these demands. Only gradually were they able to begin to develop as scientific institutions with a broader base and to collaborate with industry and other branches of production.

As development was not sufficiently rapid it was necessary to establish other institutes in addition to the universities to tackle certain problems. The sub-divisions of the faculties and the formation of new institutes led to a great number of institutions, some of them often of the same kind. This was uneconomic as far as teaching staff was concerned, and from the material point of view it meant a dispersion of resources.

The problems which arose as a result took more and more definite form and could briefly be divided into two groups. First there were those problems which referred to the structure, content, methods of teaching, and scientific research. Then there were those which referred to the organization and the system of institutions engaged in this work.

It is evident that university study, in its present form, does not fully satisfy the demands of contemporary society, neither in content, in the choice and treatment of subject-matter, nor in the organization of work. The problem is how to get young people to answer these demands, and how to make teaching more realistic and geared to making modern interpretations from a scientific and technical point of view.

Associated with the first question is the problem of the desirable relationship between the secondary schools and the universities. To what extent should the faculties influence the content and the methods of work in the secondary school? A further problem is how to establish the right relationship between specialization and the broader professional and general cultural education needed by the contemporary specialist. In other words, the question is whether to give specialists broad general professional qualifications or train them as narrow specialists. The point is to avoid the exclusive consideration of problems belonging to narrower fields, but on the other hand to include them in broader fields of study where necessary.

In establishing this relationship we come to new problems, namely that of making the courses for routine specialists easier; and that of organizing courses for specialists who will be creators and scientific workers.

The problem of scientific and research work at the universities and the co-ordination of it with the other institutions and with industry is important. The quick rhythm of scientific development makes it necessary for the contemporary scientist always to be up to date, in order to follow and take an active part in this development. In addition he has the duty of preparing personnel to meet the new needs.

When speaking of the organization of institutions which have to carry out scientific work and to teach in order to solve the above-mentioned problems, we should also remember the universities and institutes which grew up along with the faculties. These and the present situation sometimes make it difficult to solve certain problems.

As regards the great number of similar but small institutions, the question is: On what basis, and to what extent, can an organization be established which will ensure the development of scientific research, and at the same time give better results in the training of special personnel?

A further problem is when and under what conditions can the reorganization be solved within the framework of the faculties, and when within the universities? That is to say, when is it appropriate to tackle the formation of university institutes outside the existing faculties?

The relationship of these institutes with some faculties, as well as the question of their management and administration, create a new problem. Another is the role and functions of the university institutes in the training of special and scientific personnel; also their part in regular teaching as well as in post-graduate studies and in the granting of doctor of science degrees. In looking for a solution to this problem the role of the faculties up to the present should be borne in mind.

The organization of the faculties and of the various units belonging to them, regarding teaching, professional, and scientific work, has also to be decided.

All the above problems contain a number of others which await solution.

Principles of Policy—Post-graduate Study

To reach more uniform agreement on the solution of these issues, a Federal Commission has been set up to study them and make suggestions. As the problems are very complex the Commission has set up a number of committees to deal with individual questions. The universities and the faculties also have their special commissions which treat their special problems. Although the work is not yet complete, results achieved so far in the treatment of problems point to certain solutions.

The question of training special and scientific personnel in relation to the appropriate system of organization can be answered in the light of certain fundamental principles. These principles have, as a preparatory measure, been decided upon.

The basic course of study has to be orientated towards training specialists with general professional qualifications. In some cases actual practice requires a type of person which one faculty alone cannot train. Thus the possibility of combining, in a course, studies from various institutes and faculties, is absolutely essential. This combined course of study has, of course, to form a whole.

To make the course of study serve its purpose, to make it economical as regards duration and methods, as well as to make it functional in itself, it is necessary to submit plans and programmes to a thorough analysis to establish their structure. The plans should contain one *obligatory part*, essential, necessary, and sufficient for the particular profession, and, in addition to this, an *optional part* and an *additional part* should also be established. The *optional part* of the plan would contain the matter to supplement the basic speciality. This would make it possible for the individual student to qualify during the course in the special branch in which he feels most capable and interested. In the *additional part* of the plan would be found material which is not strictly special, but absolutely necessary from the point of view of the general culture and the social functioning of the individual.

In the arrangement of the plan the relationships between the *general*, the *special*, and the *introductory* aspects of each special branch should be noted. It is equally necessary to establish the right relationships between lectures, practical exercises, and practical work, which should all be closely interwoven to form a harmonious whole.

From the programme the co-ordination of material from cognate subjects should be clear. In general, all the programmes should do away with antiquated subject-matter—i.e. that which is of no importance to the contemporary scientific treatment of a particular branch.

The training of personnel on the basis of such plans and programmes alone would not be enough, and the whole field of creative and scientific work would lack necessary specialists. In order to train these we have started to organize post-graduate studies. One should not, however, regard the only aim of post-graduate studies as the training of a very small number of specialists. The level of present-day production and its further improvement requires that the possibilities of perfecting their knowledge and of further specialization should be open to a greater number of specialists.

Post-graduate study organized in this way forms, for these students, an integral part of their regular study, and it is therefore possible to remove from the basic courses material which rightly belongs to the sphere of post-graduate study. Thus the basic courses would be reduced to more reasonable dimensions and could be completed more quickly.

Opportunities for post-graduate study would be given to capable students who have been successful in their course of study. Shorter courses arranged by the faculties, or initiated from outside the faculties, would also come within the scope of post-graduate study. The aim of these courses would be to give some supplementary knowledge and to acquaint specialists in various branches with the new achievements in particular sciences. They would be intended as refresher and complementary courses.

Such a programme of post-graduate study would be satisfactory as a training for scientific personnel, and in order to qualify a greater number of specialists who are needed to solve special problems, and to participate in scientific research in production and in other fields.

Organizational Policies

To fix the organizational structure of the university and the individual faculties is a very complex task, which can be solved only gradually. One of the first problems is to combine cognate institutes, or institutes of the same kind, of two or more faculties, and to form university institutes, in the first place, for the study of fundamental science.

The university institutes would be independent scientific institutions. They would carry out and organize appropriate teaching, if the faculties were prepared to entrust them with this task. All the professors and university collaborators from the faculty would participate in the research work of the appropriate institute, even if it were a university institute. Accordingly, such an institute would include in its programme of scientific research the whole staff of the faculties concerned with the branch of research dealt with by the institute. Such institutes would bring together the material resources of all the former units. The institutes would be governed on the principles of social management.

In addition to university institutes there would also be faculty institutes, which, as far as scientific problems are concerned, would be exclusively linked with the corresponding faculty.

There would also be the faculties, institutions exclusively devoted to teaching, as well as subsidiary institutions. The former would teach only general or introductory subjects. Subsidiary institutions would carry out practical and research work, as for example, in the clinics of the Medical Faculty.

The Council for Research Work in each Republic promotes and coordinates research work in all scientific institutions. In its task the Council is guided by the Research Work Act, which has recently been passed.

All these measures are now being considered, others are in the process of being carried out, but all of them will make a contribution to the establishment of a pattern for university study.

This is the realization of only the first stage in a process of gradual development. Changes in the universities will also be influenced by the successive opening of a number of top-level schools for special branches of study—schools based on more modern principles.

A special problem concerns the number and quality of the teaching staff, the staff of specialists, and the research staff, who are capable of solving these problems and of establishing organizational and working patterns which are characteristic of modern solutions to scientific problems.

To train such personnel, a number of young specialists has been sent to other countries to perfect and improve their knowledge. Up to now the results show that the right people have been chosen and that in all the research institutions they have met with full understanding and help. Political differences did not manifest themselves too much. Scientists seemed to follow the maxim that science belongs to all humanity, and shared their knowledge and experience with our people.

We hope that these young specialists will be able to solve these problems successfully and thus raise the universities to the level of present-day institutions elsewhere. In this way Yugoslav universities, as members of the international society of universities, will fulfil their task of improving science and creating better living conditions for all mankind.

J. LUKATELA.

SECTION II

THE PRESENT POSITION OF PROFESSIONAL STUDIES IN HIGHER INSTITUTIONS

INDUSTRIALIZATION and the technological revolution have created their own problems of professionalization. In previous eras leadership could be exercised by a small number of people in any community—members of an *élite*. They gained power through inheritance, wealth, or the possession of esoteric knowledge. Since professional competence was acquired by few members of a community, it was consequently highly prized and in great demand both by members of the public and by leadership groups. Theologians, lawyers, doctors, and teachers were all members of one community of scholars. They acquired their training in the universities. Whilst providing needed social services, these groups have nevertheless in Europe always been closely associated with political leaders, and later with management rather than labour, in industry and commerce.

The links between the universities and the secondary schools were also very close. These schools, often controlled by the Church, prepared pupils for university entrance and public and Church service. The demand for military officers and civil administrators was stepped up first by the extension of the temporal power of the Church and then by the growth of national sovereignty throughout Europe. The administrators were drawn either from the faculty of law or from the faculty of arts.

This tradition dies hard. Professor Åkesson's article reveals the extent to which university courses and certificates in Sweden are used as qualifications for administrative and teaching positions. His article exemplifies a side of professional training which in certain respects is typical of the situation in most continental European countries. The distribution of occupations of university-trained men illustrates the many positions of influence and authority occupied by them in Sweden. This facet of professional education is very much in the medieval tradition.

At least two extremely important problems demand the attention of present-day European educators as a result of this tradition. One concerns the professional education of teachers. Another is the problem of meeting the demand for more and more specially trained administrators for industry, commerce, and government. This in addition to the insatiable demand for technologists of all kinds. Arising from these various demands is the question of how professional studies at the higher level should be organized and what their content and purpose should be.

Whilst education as a theoretical and philosophical study has long been a part of the faculty of arts in continental European universities, the professional study of education and the professional training of teachers have not. An English tradition has developed in which the universities concern themselves with the post-graduate initial training of intending academic high school teachers—and through the institutes of education with the training of non-graduate teachers. But education is not included in English university undergraduate courses except at North Staffordshire. Thus both in Europe and in England the universities have undertaken the task of preparing teachers for the classical secondary or grammar schools. The single profession included university don and grammar school professor.

Within this group there has long existed a tradition that professional training is unnecessary for a secondary school teacher or a university don. The acquisition of subject-matter together with a broad general background in the liberal arts has been thought appropriate and adequate. In retrospect, and on the basis of certain criteria, there can be little doubt that this policy proved successful. Europe's cultural heritage has been preserved and enriched; corps of honest administrators were developed; and industrial development went ahead at an unprecedented rate. As institutions of academic learning the French *lycée*, the German, Dutch, and Swedish *gymnasia*, among others, are models. They prepared pupils for universities whose main object became the promotion of research and scholarship. The view that this kind of training was the best for intending teachers should not be dismissed lightly. Certainly many educators in Europe would not accept it. But against the conservatism of the university faculties generally, their protests that teachers should be more adequately prepared for primary and secondary schools through undergraduate courses and practical experience make little headway.

Considerable strain has been thrown on this closed system of classical grammar school and university by the impact of universal elementary education. It was soon recognized that trained teachers were necessary if these schools were to achieve their purposes. But the establishment of separate—inevitably of inferior status—teacher training colleges for intending elementary school teachers has had deleterious effects, in many countries, on the professional solidarity of teachers. Where the division between secondary and elementary schools remains sharp (as in many European countries) the effect has been less noticeable than in England. The divisions which now exist between secondary school teachers and their elementary school counterparts have retarded the development of a new type of professional unity and have militated against a general raising of the professional competence of all teachers. A broad distinction might be drawn between European and English policies in teacher training. In Europe the training colleges emphasize the importance of ' subject-matter '. Their courses of study are much more academic and (for various reasons) are an extension of secondary school work. In England, on the other hand, professional studies like ' principles of education ', ' educational psychology ', ' history of education ' occupy a major part of the time-table. The adequacy of both these approaches is certainly questionable. Certainly neither meet the standards of training thought necessary in medicine or law.

On the other hand, the situation in the United States shows features which can be sharply contrasted with those mentioned above. The divisions between types of post-primary or secondary schools have been reduced. The classical grammar school as it is known in Europe has disappeared. The transition from primary or grade school to the high schools is neither violent nor selective as in Europe, where it is based on achievements in academic tests. With the reduction of these differentiating features there has been a concomitant unification of teacher-preparation practices. With certain exceptions—some relics of the past, others retrogressive devices to meet teacher shortages—most teachers are educated in degree-granting institutions. Their initial course of four years leads to a degree and includes educational studies and a certain amount of teaching practice and experience. The hostility of some members of the liberal arts faculties to education is apparent and compares with the low esteem accorded to education in European universities generally. But the growth of education as a professional and undergraduate discipline in the United States reflects the inexorable movement towards a greater diversification and intensification of professional preparation in the colleges and universities.

Many of the problems, then, which are associated with the preparation of teachers under the influence of the universities derive from the historical tradition we have mentioned and from the introduction during the nineteenth century of mass education. The response of the universities to this demand has been very uneven. The more adequate organization of teacher education depends, in many countries, upon a change of attitude on the part of present power groups within the universities themselves. Many of the problems of control, finance, and organization considered in the next section have their origin in the persistent refusal of the universities either to expand or to accept fully the responsibility for the training of primary and post-primary school teachers.

In this section, however, contributors have directed their attention to those studies which found their way only gradually into the universities and with some of those which have never been formally accepted as being suitable. The demand for technologists, business managers, and industrial managers created by the scientific and industrial revolution has been stepped up enormously by post-World War II development. The need for engineers, administrators, and professionally trained commercial men has long been recognized in Europe. Each country, in the light of its traditions and circumstances, responded to this challenge in slightly different ways. Consequently a variety of systems evolved which have influenced developments not only in Europe but throughout the world.

France was one of the first countries to meet the need for professionally trained personnel through national planning. M. Thabault relates these developments to the Industrial Revolution. The *grandes écoles* were intended, for example, to provide top-ranking civil servants. The aim of the 1808 Napoleonic reorganization was to ensure that the institutions of higher learning would serve the State by providing it with qualified persons. Even under the Liard reforms, which re-united the faculties into universities, the latter remained public institutions. Private enterprise, however, as everywhere, played its part in establishing technical schools to supply manpower for industry and commerce, and it was not until 1880 that professional education organized by the State came into being. These and subsequent developments show how systematically as the result of State–private enterprise collaboration the demand for technically trained personnel created by technological development has been met in France. Even so, the number of technicians required outstrips the supply of them.

The French organization of institutions and programmes of study has undoubtedly influenced policy in many countries. One sees in the attempts of the Revolutionary and Napoleonic eras to reorganize higher education a concept of a system of education designed to meet the national requirements of trained personnel at all levels and in all fields. To this system the French have given their own intellectual flavour, but it yet remains an outstanding example of an approach at the national level to integrate professional studies into the general educational system. Perhaps for this reason it has been widely copied.

The determinants of German development during the nineteenth century were somewhat different. Great praise has been bestowed on the efficient system of technical and commercial universities which developed under the compelling desire of the German states to strengthen and unify their economies and achieve political unity. Sir Michael Sadler, among others, greatly admired the skill with which the Germans had geared their educational system to commerce and industry. The plan was not, and could not be, a national plan. Institutions grew up as copies of those established in the dominant state—Prussia—and under the influence of private enterprise and state and municipal investment.

In Dr. Lourenço-Filho's article one sees the influence of the French system and their centralized planning in the growth of professional studies in Brazil. He points to two general trends; first a considerable growth in the university system, and secondly a diversification of studies in the light of the country's economic requirements. Professional institutes were established early in the nineteenth century for the preparation of civil service officials, military leaders, and diplomats. Not until 1920 was a university established by bringing together the three large professional schools. Nevertheless in 1937 the re-defined purposes of the university included the training of professional personnel, research workers, and teachers as well as the development of scientific and technological research. The picture presented is of higher education responding, under the dominating influence of the professional schools and as a result of national planning, to the economic needs of the country.

Two other patterns are considered in this section. Both England and the United States accepted technological studies in their nineteenth-century universities. In both cases this was a period of vigorous germination and growth for them. The acceptance has perhaps been more complete in the United States than in England, where present policy tends to suggest that a pattern of separate technological institutions (colleges of advanced technology) will be established side by side but independent of the universities. Dr. Venables analyses some of the implications of this trend. He argues, for example, that it does not necessarily imply that the colleges of advanced technology will have less autonomy than the universities. This is certainly one of the important issues in the establishment of what might become a new tradition within the pattern of institutions of higher learning in England. The other possible consequences of separating off from the universities into separate institutions which will be financed differently (and hence controlled differently) are equally important both for the institutions themselves and the universities.

Finally in this section we present a short analysis by Dean Finch of engineering education in the United States. The history of American institutions of higher learning since the Revolution can be seen as a process of accommodating the colonial colleges to the twin demands of industrial development and democratic pressure to extend the opportunities for higher education on a vast scale. The two have combined to give professional studies in American institutions a standing which is in sharp contrast to that accorded them in Europe. More and more students elect to prepare themselves professionally. They have moved away from liberal arts into an increasing variety of courses of professional study. Business and commerce, education, engineering, and applied biology now attract the majority of undergraduate students. This process has been most marked over the last fifty years. It has not been without its recognizable dangers. There has always existed the possibility that narrowly professional studies would, to quote Dean Finch, menace " the full development of American University standards and ideals ". A further danger is that undue emphasis on applied research will unduly impoverish advances in basic fundamental scientific knowledge.

On these issues university men are divided. The successful liberalization of technological and professional studies so that they will provide an adequate background on which leadership in the modern world can safely rest is one of the crucial needs of our time. Neither an education wholly in the liberal arts, nor one which pays exclusive attention to applied problems, will meet this need. Education has always been both an instrument of selection and a preparation for leaders. Perhaps few people to-day would maintain that the ability to offer leadership is inherited; it derives from a man's qualities of character, from the knowledge he possesses and from his ability to use it effectively. In the final analysis, the one problem of professional education to-day turns on our ability to discover the appropriate means of providing potential leaders with the kind of knowledge they will require to tackle the complex problems of the second half of the twentieth century. Another is to make this kind of preparation available to many more people since an expansion of the leadership group is one of the phenomena of modern society. As always, political leaders need the services of these men—trained in the universities or the professional institutes. It is not idle to suggest that a basic requirement is that the latter should have the fundamental professional integrity associated with members of the traditional professions and should also be aware of their social responsibilities. On the other hand, the former cannot afford to possess only a most superficial knowledge of the natural and social sciences. Professional studies cannot be regarded as simply preparing a man for a specific job. They should be seen in the context of the medieval tradition, as an integral part of the education of potential leaders for their role in the social, political, and economic life of the world.

THE EDITORS.

CHAPTER ONE

Professional Education in Sweden

As a rule [1] every type of professional education in Sweden is based upon success in the *studentexamen* (higher certificate examination) [2] which is taken at the gymnasia (under the control of university professors) after twelve to thirteen years of schooling and at an average age of some 20·3 years. Since 1927, most Swedish *gymnasia* have been co-educational. Boys and girls take the same student examination and both sexes are now able to enter every kind of institution of higher education except those leading to a military career. The *studentexamen* may be regarded as an entrance ticket to the university, but in the case of the Faculty of Medicine, the Institutes of Technology, Dental Surgery, Veterinary Surgery, Pharmacy, Forestry, Agriculture, and Business, as well as Military Schools and Institutes of Education, pupils are selected by different methods in accordance with the special requirements of these departments.

Since the middle of the nineteenth century there have been two 'sides' in the Swedish *gymnasium*: a classical and a natural science 'side' (*latinlinje* and *reallinje*). A further division of the classical stream took place in 1905, and greater differentiation on both sides was introduced in 1927 and 1933. As preparation for professional education in the university, many of the permitted combinations of subjects proved unsatisfactory, and the system gave rise to a very large number of 'complementary' examinations which unfortunately extended the period of study.[3] Since 1953 the *gymnasium* has been provisionally divided into six relatively fixed streams: two with Latin (one of them with Greek); two with natural sciences (one concentrating more on mathematics and physics, the other with more emphasis on biology and chemistry); and two so-called general lines (one concentrating more on social and biological sciences, and the other more on modern languages). Christian religion (without a final examination), Swedish (which includes some reading knowledge of Danish and Norwegian), and history are subjects common to every stream. Every Swedish student is examined in two modern languages (English, French, or German; and in a few cases Spanish or Russian), and usually has a reading knowledge of a third. Before World War I a great many of the scientific (including medical), philosophical, philological, and theological dissertations and papers were published in German. Recently the use of English has become much more frequent among Swedish scholars.

---

[1] The exceptions from this rule are stated in H. Björinder : *Vägar till universitet och högskolor* (" Ways to university and higher institutes "), (Stockholm, Almqvist & Wiksell, Gebers, 1955).

[2] In *Statistisk Årsbok* (*Statistical Yearbook*, fundamental for all information about Sweden) it is called the " Higher Certificate examination ".

[3] See, e.g., the statements by S. Moberg and C. E. Quensel about students in 1943 in *Statens offentliga utredningar* (" Public Investigations "; 1949 : 48, p. 204, etc.). [Subsequent abbreviation for *Statens offentliga utredningar* is SOU.]

Distinct trends in the award to *gymnasia* students of higher certificates can be seen over the last half-century. During the period 1911–15 the average number of student higher certificates awarded was 1,755 per year (about 1,510 males and about 245 females). The proportion of females to males on the natural science side was 54 to 856. In the period 1936–40 the average number had increased to 3,569 (about 2,440 males and about 1,120 females) and the proportions in natural science were 255 to 1,418.

In the year 1950 the total number graduating was 4,497 (2,702 males and 1,795 females), with a proportion of 765 women to 1,953 men on the natural science side.

The figures for the year 1955 were 5,957 (3,316 males and 2,641 females), and the proportion in natural science was 943 to 2,333.

Up to 1948 the number of males on the Latin side decreased yearly until it reached 613. Afterwards the trend was reversed, and in 1955, 983 males (against 1,698 females) obtained student certificates with Latin.

During the years 1950–5 the proportion of females to males was *almost constant* on the natural science side, but *increased* on the Latin side.

In 1911 the total population of Sweden was 5,561,799, and by 1955 it had risen to 7,290,112 (an increase of 31 per cent), but over the same period the number of student certificates obtained increased by 180 per cent.

During the last study year at the *gymnasium* every candidate for the *studentexamen* receives a printed survey[4] of all forms of higher education. About 90 per cent of the students go on to the universities, special institutes, or to other courses.

An idea of the approximate distribution of students among the different professions can be found in the investigations of Moberg and Quensel.[5]

---

[4] *Student—58*, ed. by Kungl. Arbetsmarknadsstyrelsen [Royal Board of Labour Market].

For men, medicine, teaching, and engineering were most popular. By far the largest number of women entered teaching. The proportions have, of course, shifted with the increasing total number of women students. In administration generally, social welfare, pharmacy, post, telephone, and business employment the percentage is probably much higher now.

In the most recent period [6] some 3,000 students (men and women) were registered annually in the Faculties of Arts (80 per cent) and of Natural Sciences.

Fundamental Professional Education

The Universities of Uppsala (founded 1477) and of Lund (founded 1668) have, since 1957, been organized in five Faculties: Theology, Law, Medicine, Humanities, Natural Sciences. The *Stockholms Högskola* (the University of Stockholm, which is a private institution and has been supported from its opening in 1878 by the City of Stockholm, and now also by the State) includes the Faculties of Law, Humanities, and Natural Sciences. The Faculty of Medicine in Stockholm has since 1816 been independently organized as a Royal Institute (*Karolinska institutet*). The University of Göteborg (founded 1892 as a private institution, and now supported by State and City) includes the humanities, some natural sciences, and medicine.

The universities are now organized according to the *University*

---

[5] *SOU* 1949, 48, p. 314. etc. In 1930 the total number of student certificates was 1,771 men and 477 women. In 1946 the professional distribution was roughly as follows:

Men: Agriculture, 10; legal administration, 43; police, 29; ministerial and central administration, 59; county (*län*) administration, 27; local administration, 24; organization of employers, etc., 14; other juridical positions, 50; clergy, 91; teacher, 153; library and museum, 9; other graduates, 35; journalists, artists, etc., 42; engineer, land surveyor, 231; architect, 39; forestry, 13; post office, 21; customs, 20; telephones, 9; military officers, 64; industry, 62; business and management, 48; banking, 64; insurance, 15; audit, 17; business employee, 106; gymnastics, 7.

Women: Legal administration, 1; ministerial and central administration, 7; social welfare, 7; medical profession, 9; dentistry, 24; pharmacy, 11; nurse, 6; teacher, 76; library and museum, 14; engineer, 1; architect, 2; post, 22; banking, 5; insurance, 6; business employee, 42; gymnastics, 7.

[6] Statistics concerning student higher certificates and academic degrees during 1910–55 are supplied in *SOU*, 1957:51 ("Counting of Graduates, 1955").

Statutes of April 6th, 1956.[7] They are governed by a university chancellor whose name is presented to the Government as the result of an election by special representatives of all ordinary professors. The appointment is then made by the Government.

University Studies

At his registration a student must decide to which faculty and (in Uppsala and Lund) to which student union he wishes to belong. He has to pay a small entrance fee to the university, and moderate fees every academic year to his nation (in Stockholm and Göteborg to the Student Organization), but nowadays there are no tuition fees. The *Examination Statutes, Study Programmes,* and *Study Directory* (*Studiehandbok*) of the faculty are presented to him by the university. He also gets his *examination book* (*Tentamensbok*), in which his teachers record his attendance at courses and the final results of his examinations. In Uppsala, Stockholm, and Lund the student organization (*Studentkåren,* which in Uppsala and Lund includes all the nations) presents a *Student Advisory Book* (*Studenthandbok*) of a more local character to every newly registered student.

In most subjects students have to pass written and/or oral examinations. The last one is often divided into parts. The *Study Directory* informs him about examination requirements and gives brief advice on the courses of study. It states in detail the different mark requirements for the various ' classes ' or grades of degree which the faculty confers.[8]

Nowadays the marks are accepted in every Swedish university. Some slight restrictions remain. A student may be examined in English at Lund, in French at Uppsala, and in German at Göteborg, and afterwards get his diploma as a *fil. kand.* at any one of these universities. Through conferences of professors from the different universities the requirements in a subject are made uniform. The required readings often

---

[7] Royal Statutes: *Svensk Författningssamling* No. 117/1956. [Subsequent abbreviation for *Svensk Författningssamling* is *SFS.*]

[8] Before 1953 the scale of marks was generally as follows:

Berömlig (*laudatur*)	3 points
Med utmärkt beröm godkänd (*cum insigniore laude approbatur*)	2·5 points
Med beröm godkänd (*cum laude approbatur*)	2 points
Icke utan beröm godkänd (*non sine laude approbatur*)	1·5 points
Godkänd (*approbatur*)	1 point
Försvarlig (*admittitur*), used only in some courses	0·5 point

After 1953 some new marks were introduced—in *Teol. kand., Med. kand., Med. lic., Fil. mag., Fil. kand.*:

Mycket berömlig (*valde laudatur*)	3·5 points
and in *Fil. kand.* only:	
Särskilt utmärkt (*maxime laudatur*)	4·5 points
Utmärkt (*egregiæ laboris causa laudatur*)	4 points

change and are brought up to date, but on the whole the requirements cannot be increased to any considerable extent. Recently a Committee of Instruction (*Undervisningsnämnd*), consisting of representatives of the academic teachers and of the student organizations, has been introduced into every faculty and special institute. It has to study the development of instruction and requirements.

To obtain 1 (1·5) point means that a student has acquired an amount of knowledge which might reasonably be expected of him through attendance at courses, lectures, exercises, laboratory work, or seminars, and reading, for one session (five months). For 2 (2·5) points more intensive studies, normally based on two sessions, are required. Usually a shorter paper is written and discussed in a seminar. For 3 (3·5, 4, and 4·5) points a more scientific or more learned and independent paper or laboratory work, much more active participation in seminars, and very wide reading are required. It is generally assumed that in university studies on this level every student should, on the average, gain one point each session. An investigation of the students of the Faculty of Philosophy at Göteborg in 1957 showed that slightly more than two-thirds of the estimated points were obtained.

The order in which subjects are to be studied is regulated much more in the Faculties of Theology, Medicine, and Law than in the Arts and Natural Sciences. Some subjects are, of course, pre-requisites for others, e.g. mathematics for theoretical physics and chemistry. The study of a particular subject often begins with 'preparatory' or elementary courses. The teachers are (from lower rank to higher): assistants (*amanuens, biträdande lärare*), university lecturers (*lektor*),[9] assistant professors (*docent*), laboratory professors (*laborator, observator*), and professors. Some professors with lower salaries are now called *preceptor*. There is no tutorial system, and the professor–student ratio is very small. The present tendency is to increase the numbers of assistants and lecturers (they are less expensive). The result is to diminish personal contact between professor and student, and to increase the number of written examinations.

All degrees are conferred through certificates, and only the doctoral degrees publicly at the end of the academic year, which runs from September 1st to December 15th (autumn session) and from January 15th to May 31 (spring session). Some courses begin earlier, in August and in January. Nowadays there are fixed periods for examination. Yet many oral examinations take place during the vacations, particularly in the summer.

---

[9] This grade applies particularly to foreign lecturers in every modern language, and to so-called 'educational lecturers' (*pedagogiska lektorer*), who prepare the special material for school and *gymnasium* courses.

General Motives behind Recent Developments and Revisions in Professional Education

Several reasons can be given for the recent reform movement in professional education. These may be listed:

(1) The differentiation and specialization of professional work in every field;

(2) the lack of enough competent people in every profession as well as in industry and business;

(3) the increasing number of students, particularly of women; and

(4) the heavy burden of study debts because of the long period of study and increasing living costs.

Some general steps have been taken to cope with the position of students during the last two decades. They are as follows:

(1) A reduction of study time, particularly for the lower university degrees (illustrations below);

(2) an expansion of the teaching staff;

(3) building new institutions and laboratories;

(4) economic support for students in different ways. For the present (very approximately) about one-fifth of the students get state grants; about one-fifth have state loans without interest (repayable after examination); about 90 per cent have some loan, which is guaranteed by the state with interest (repayable after examination);

(5) support of houses built for students by student organizations or nations: the housing problems are still tremendous;

(6) support for various investigations and the printing of dissertations.

The amount of money which is spent yearly by the State and private funds, e.g. *Wallenbergsstiftelsen*, *Wenner-Grens Stiftelse*, and many others, is steadily increasing.

A limited number of state grants (for three years) are given to such *fil. kands.*, *fil. mags.*, *pol. mags.*, *teol. kands.*, and *jur. kands.* who proceed to a licentiate examination (*licentiandstipendium*) and to such licentiates in all faculties who are preparing a doctor's dissertation (*doktorarandstipendium*).

The Training of Teachers, Scholars, and Scientists

Swedish School Education since 1900

In order to appreciate the problems associated with teacher training in Sweden it is necessary to give a brief outline of school developments this century. In 1900 a Swedish child either received a compulsory primary (elementary) school for six years or had to receive an equal private education; grades 1 to 2 were called *småskola*, grades 3 to 6 *folkskola.* After 1842 this education was free, supported by State and local authorities, and supervised by the chapters of the dioceses. In many towns, particularly the larger ones, there were many private schools which for three years prepared their pupils (boys) for the entrance examination to the *läroverk*, which included a secondary education of five years and a *gymnasium* of four years, and which was completed by the *studentexamen*. The *läroverk* was supported by the State and supervised by the chapters. Very small fees were paid by the parents, and some *läroverks* had large funds and were able to offer grants to very able and poor pupils. For the primary and secondary education of girls there were many private schools, usually organized as preparatory schools (three or four years) and then 'girls' schools' (*flickskola*; eight years). There was no final examination, but the girls' schools offered a certificate which was highly thought of because most women teachers were educated in higher institutes for women teachers (*Högre lärarinneseminarium*), but their fees were sometimes very high. In 1900 some girls' schools had already introduced a *gymnasium* education of three years, based upon their 7th grade, or of four years, based upon their 6th grade. As a rule these girls took their final *studentexamen* after thirteen school years as 'private students' at a *läroverk* for boys, but by and by (after 1894) the right of examination was conferred on the girls' *gymnasia* themselves.

This system was considerably modified in 1905 and 1907. The supervision of the secondary education was transferred to a new Central Board in Stockholm (*Kungl. Läroverksöverstyrelsen*). The *läroverk* was formally divided into two levels: the *realskola* (secondary school) and the *gymnasium*; a final examination (*realskoleexamen*, later *realexamen*; the lower certificate in *Statistisk Årsbok*) was introduced after the 6th grade of the *realskola*. The *gymnasium* (four grades) was based upon the 5th grade of the *realskola*. Moderate fees (which could be waived or reduced, according to parents' income) were introduced. In small towns *realskolas* (without *gymnasia*) were established, but the number was not adequate. In 1907, local authorities received the right to establish secondary schools with four grades based upon the 6th grade of the primary school. They were called *kommunala mellanskolor* ('Communal Middle School') and the education was completed there by the *realexamen*.

The numbers of 'lower certificates' increased rapidly. During the years 1911–50 about a third of all students with the *realexamen* certificate proceeded to the *gymnasium*, frequently to the 1st grade of the *gymnasium*, and subsequently passed their *studentexamen* after about thirteen or fourteen years in school.

Later, particularly in 1918, a system of continuation schools and secondary technical, business, industrial, and craft schools was built upon the primary school; the model was Kerschensteiner's *Gewerbeschulen* in Munich.

These developments in the school system created a growing demand for teachers, particularly graduates for the secondary schools and *gymnasia*.

Acts of Parliament in 1927 and 1929 made the State and local authorities wholly responsible for the education of girls; the private girls' schools were closed down one by one and replaced by co-educational secondary schools (*samrealskola*) and communal girls' schools (*kommunalt flickläroverk*). The *realskola* was now basically built upon four years of primary schooling and there were only five grades leading to the *realexamen*. An entrance examination to the *realskola* remained, but was substituted late in the nineteen-forties by a point evaluation system of school marks at the end of the 4th grade of the primary school. Yet a high percentage of competent applicants was still excluded because of the insufficient number of places in the *realskola*. For those boys and girls who had passed the *realexamen* and wanted to proceed to the *gymnasium*, new three-year courses were introduced. From the *flickläroverk* also girls were promoted to the *gymnasium* (mostly into streams taking four years). In this way the whole system became co-educational in principle, although many separate classes remain for the ages 10–16 years, and a few girls' *gymnasia*.

In 1936 a seventh year was added to the compulsory primary education (age 7–14), but because of World War II this decision was not implemented in every school district until 1950. By and by an eighth year was made compulsory, particularly in some towns. This expansion still further increased the demand for teachers generally, and in the 'forties many incompetent teachers were appointed, particularly in primary and secondary schools.

In 1950, through Parliamentary decisions of principle, a compulsory ‘comprehensive school’ (*enhetsskola*) lasting nine years was introduced. After an ‘experimental period’ it will generally replace the present forms of primary and secondary schools up to the *realexamen*. It will be divided into three levels: *småskola* (grades 1 to 3), *mellanskola* (grades 4 to 6), and *realskola*, also called *högstadium* (grades 7 to 9). The entrance examination to the *realskola* has been abolished. English has been introduced as a compulsory subject from grade 5. The *realskola* is to be differentiated into three streams in the 9th grade: general (*allmän*, 9-*a*), practical occupational (*yrkes-*, 9-*y*), and theoretical (9-*g*). Upon this basis a *gymnasium* course of three years is to be built, the 9-*g* stream serving as a preparatory year to it. The normal total length of schooling up to the *studentexamen* will in this way be twelve years.

'Comprehensive schools' have now (1957–8) been established in districts which are said to include 15–20 per cent of the school population in those ages.

In 1950 a declaration was made in Parliament that the teachers in the comprehensive school in grades 1 to 6 ought to be class teachers, and those in grades 7 to 9 special-subject teachers. In order to give a common background to these two kinds of teacher a 'Higher Institute of Education' (*lärarehögskola*) was opened in the autumn of 1956 (see below).

So much for the general background of the education of teachers. After 1905 there were five different types: (1) teachers of primary school grades 1 to 2, almost all women (*småskollärarinna*), educated in normal schools (*småskoleseminarier*); (2) teachers of primary school grades 3 to 6 (7 to 8), and of continuation schools, educated in normal schools, which in 1937 were developed into institutes of education. These were for both men and women (*folkskollärare, folkskollärarinna*); (3) teachers of secondary schools, men and women, educated at the universities (*läroverksadjunkt* or *ämneslärare*); (4) professors of the *gymnasium*, men and women, educated at the universities (*lektor*); (5) special teachers of gymnastics, sloyd, needlework, song and music, at every level, men and women, educated in special higher institutes, e.g. the Institutes of Physical Training (Stockholm for some time, and also in Lund), the Institute of Sloyd (Nääs), the Institute of Needlework (Stockholm), and the Academy of Music (Stockholm). Homework was introduced and by and by made compulsory for girls in continuation schools; teachers were educated in institutes in Uppsala and Göteborg. These 'practical' subjects (*övningsämnen*) constitute an important part of Swedish education.

Teachers of Theoretical Subjects

The large majority of teachers of theoretical subjects (*läroämnen*) at present teaching in the secondary schools and *gymnasia* were trained according to the *Examination Statutes* of November 1st, 1907 (with many later alterations and additions), in the Faculty of Philosophy of the universities. The faculty confers four different degrees: *fil. kand.* (Candidate of Philosophy); *fil. mag.* (Master of Philosophy), also called *filosofie ämbetsexamen*; *fil. lic.* (Licentiate of Philosophy), and *fil. dr.* (Doctor of Philosophy). In 1935 the degree of *pol. mag.* was added.

(A) The *fil. mag.* is the fundamental examination for teachers in secondary schools and *gymnasia*. According to the *Statutes* of 1907 it could be obtained in fourteen different groups of major subjects, which roughly corresponded to the different types of appointment in the *gymnasium*, *realskola*, and *mellanskola*. These groups were as follows:

(1) Scandinavian languages, Latin
(2) Scandinavian languages, German
(3) Scandinavian languages, English
(4) Scandinavian languages, History
(5) Latin, Greek
(6) Latin, History
(7) German, English
(8) German, French (Romance languages)
(9) English, French (Romance languages)
(10) History, geography
(11) Geography, botany, zoology
(12) Mathematics, physics
(13) Physics, chemistry
(14) Chemistry, botany, zoology

In addition to a *fil. mag.*, a third subsidiary subject, selected from among the mentioned main subjects, was required. For example, groups 7, 8, 9 were often combined with a third modern language. Mathematics might be combined with every group (except number 12, of course). Botany and zoology were combined into one school subject: ‘Biology’; Scandinavian languages had to be combined with history of literature (1 point) to qualify to teach the school subject ‘Swedish’. A total of 7 points was required (at least 2 in each of the major subjects; botany and zoology were together 3 points). Besides the required three school subjects, any subject taught in the faculty might be included. Frequently groups 10 and 11 were combined with geology; groups 12 and 13 with astronomy; groups 4, 6, and 10 with political science.

In addition, every *fil. mag.* included a compulsory course in ‘psychology, and the theory and history of education’, of one session in length. As a rule it was attended together with the third subject, but was often replaced by elective studies in ‘education’ or ‘psychology’ (1 point).

In 1907 the period of study for a *fil. mag.* was somewhat loosely estimated as seven sessions; on the average it turned out to be much longer, particularly in some groups, e.g. 1, 4, 12, 13, 5 (combined with history), 6 (combined with Greek). In order to strengthen the qualification for the purposes of appointments, one of the major subjects was very frequently passed with 3 points.

The courses leading to the *fil. mag.* (exercises, lectures, and seminars in the arts; exercises, laboratory experiments, excursions, lectures, and seminars in the natural sciences) were very intensive and academic. For different subjects there were, as stated, different pre-requisites in the *studentexamen*. In time the faculties themselves introduced ‘complementary courses’ in Latin and mathematics. In the instruction of modern languages generally, phonetics and pronunciation were emphasized, and very large reading lists, including modern and classical texts, were required in order to gain high marks. A visit to the foreign country was not insisted upon, but recommended (for a *fil. lic.* it was essential), and foreign lecturers were appointed for an increasing number of modern languages. Swedish teachers became well known everywhere for their ability in foreign languages (incidentally, I once heard T. S. Eliot compliment a Swedish teacher on his 'perfect Oxford English').

On the other hand, a general complaint, above all from younger teachers of mathematics, natural science, and Swedish, was that university studies neglected material suited to the schools. More instruction in those parts of the subjects was urged, and in time, in the 'forties and 'fifties, so-called *pedagogiska lektorer* were introduced in the faculty. But discontent with the insufficient adaptation of the theoretical instruction to the actual work of teachers was one of the main reasons for the general revision of study programmes during the present decade.

I return to the requirements of 1907.

After the *fil. mag.* examination a student had to serve for two sessions as *provårskandidat* in some *läroverk* or (after 1937) in some institute of education. This service was a pre-requisite for a permanent teaching appointment. The educational abilities of the candidate were assessed by the *rektor* (dean) of the *läroverk* and by the special instructors (as a rule the professors, *lektors*). The certificate from this *provår* (practice year) had and still has an important bearing upon the future career of a teacher. Only at a few *läroverk*, and chiefly in the university towns, could such a 'practice year' be passed.[10]

Although they increased, the number of places for candidates was very limited compared with the number of competent applicants. Many had to wait for years, and meanwhile served as teachers *extra ordinem* with low salaries. Although there was an increasing demand for teachers, many *fil. mags.* could not obtain a permanent position before the age of 35 years. This proverbial 'misery of extraordinaries' was not relieved until July 1st, 1952, when teachers were included in the so-called 'regulated order of promotion for civil servants'.[11]

---

[10] Concerning the organization of the 'practice year' cf. the Royal Statutes of May 19th, 1917 (*SFS*, No. 312), and Royal Pronouncements (*Kungl. kungörelser*) of June 29th, 1928 (No. 265).

[11] In 1957 a *fil. mag.* in full-time service had a monthly salary of *Sw. crs* 1,172–1,353, for service during his first three sessions (the variations depend upon the expensiveness of the place); *Sw. crs* 1,320–1,500, for service during his next five sessions; and of *Sw. crs* 1,486–1,664 during his next six sessions of teaching. Taxes are included. They vary progressively from about 15 to 25 per cent. After seven years' service, at an age of about 32, a *fil. mag.* has probably obtained his first permanent position (with a monthly salary in 1957 of *Sw. crs* 1,672–1,844, taxes included), but he may have got it earlier, if he has passed his 'practice year', which for some teachers with at least four sessions' service is provisionally reduced to one session. Approximately 14·5 Swedish crowns=£1=$2.80.

The outbreak of World War II interrupted the university studies of men; in 1940 only 88 men and 88 women graduated, but in 1941, 155 men and 110 women passed the *fil. mag.* examination. At the end of 1940 a Royal Commission on the Revision of the School System (*Skolutredningen*) was appointed. Up to 1950 the development of the *realskola* was blocked by the central authorities; the prospects of a *fil. mag.* consequently seemed insecure.[12] When the total numbers for 1947 (222) and 1948 (214) are compared with the 1930 figure of 206, the pessimism of the students at the beginning of the 'forties is apparent. But it soon became quite evident that, as a result of the increasing birth-rates after 1940.[13] the demand of secondary teachers was going to be overwhelmingly large after the second half of the nineteen-fifties. The number of *fil. mags.* consequently increased considerably: men/women, 183/120 (1951), 185/143 (1952), 270/185 (1953), 356/264 (1954), and 380/277 (1955).[14]

The lack of competent teachers is greatest in mathematics, physics, and chemistry. In 1955 only 189 (144 men and 45 women) *fil. mag.* degrees were conferred by the Faculty of Natural Sciences, against 467 (235 men and 232 women) by the Arts. Only a minority of the natural scientists majored in mathematics, physics, and chemistry. The figures for the 'thirties and 'forties are much lower, e.g. 1947, 69 (50 men and 19 women). The special reasons for this lack, which constitutes a danger for the whole system of education in fundamental natural science, are many, and I can mention only a few. (1) First, there is the devastating effect on the interest of pupils in mathematics of the quality of teaching of uninterested and incompetent teachers at every school level. (2) Secondly, a large percentage of students with high marks in mathematics, physics, and chemistry in their *studentexamen* went into the institutes of technology and military establishments. (3) Thirdly, because of (1) and (2), the basis of selection of mathematical students at the university was too narrow. (4) In the fourth place, the number of places in the university laboratories was too small. (5) Then, too, the study period for a *fil. mag.*, including all three subjects, was on the average very long (ten to eleven sessions; see *SOU*, 1936:34, and *SOU*, 1943:17, p. 112) and increasingly discouraging because of increased living costs. (6) The number of women studying these subjects for *fil. lic.* and *fil. dr.* was very small. (7) Seventhly, the salaries offered to *fil. lics.* and *fil. drs.* by industry and business were much higher than teacher salaries. (8) Because of (6) and (7) there was a tremendous lack of *lektors* at the *gymnasia*, and an increasing amount of instruction has to be given by *fil. mags.*, whose places in the secondary schools must be filled ' provisionally ' by incompetent teachers, often for a long time, and so on, and so on.

---

[12] From 1942 to 1950 the figures for *fil. mags.* are as follows: *men*—139 (1942), 115 (1943), 157 (1944), 123 (1945), 140 (1946), 139 (1947), 119 (1948), 163 (1949), 157 (1950); *women*—101 (1942), 111 (1943), 100 (1944), 106 (1945), 106 (1946), 83 (1947), 95 (1948), 83 (1949), 111 (1950).

[13] Culminating in 1944–5 with some 135,000 live births yearly, and after that a slow decline to 121,000 in 1949.

[14] Although these figures are the best available, I do not guarantee their exactness. *Statistisk Årsbok* gives the figures 379/277 for 1955. In another investigation (*SOU*, 1958 : 21, p. 67) the total number of *fil. mags.* in 1955 was 682 (not 657). In this investigation the author has tried to find out how many *fil. mags.* were aspirants for teacher positions; he gives the figure 560 for 1955.

In the new *Examination Statutes* of September 25th, 1953 (*SFS*, No. 610/1953), some modifications concerning the *fil. mag.* degree were introduced. The most important ones are:

(1) The combination of subjects in fixed groups is abolished. The examination may now be taken in *any two-subject combination*, called *major subjects* (*huvudämne*). Every major subject corresponds to a school subject (*läroämne*).[15]

(2) Some of these major subjects must include *special courses* in related examination subjects, if these are not passed as main or subsidiary subjects, e.g. physics must include a course in astronomy; chemistry a course in mineralogy; botany and zoology a course in genetics; history and political science a course in social science, with emphasis upon economics.

(3) Only 6 points are required to pass the examination.

(4) Every single major subject must be passed with at least 2 points, every double major subject, e.g. history and political science, with at least 3 points.

---

[15]

Major Subject	*School Subject*
Theoretical philosophy	Philosophy (with psychology)
Practical philosophy and theoretical philosophy	Philosophy (with psychology)
Psychology and theoretical philosophy	Philosophy (with psychology)
Psychology and education	Psychology and education
Scandinavian languages and history of literature with theory of literature	Swedish
History and political science	History with social science
History and economics	History with social science
Latin	Latin
Greek	Greek
German	German
English	English
Romance languages	French
Slavic languages	Russian
Mathematics	Mathematics
Physics	Physics
Chemistry	Chemistry
Geography	Geography
Botany and zoology	Biology

(5) Since every *fil. mag.* (in addition to two major subjects) may include one (or more) major subject or any examination subject(s) of the Faculty *subsidiary subject*, and further must include either ‘ education ’ as a subsidiary subject or a course in ‘ psychology, and the history and theory of education ’, the whole examination can be organized in a number of different ways.[16]

(6) The normal for the course is estimated as a “ maximum of three years ” but may “ under special circumstances ” be extended to a “ maximum of four years ”. It is expressly stated (*Examination Statutes*, § 7) that this normal time “ presupposes that the student has the necessary pre-requisites of knowledge, and can devote his time exclusively to study and is in continuous attendance ”. (So far the real period of study has turned out to average from seven to nine sessions for different combinations of subjects.)

(7) The requirements for the marks 1, 2, and 3 are correspondingly reduced and standardized for 1 and 2.

In the revised study programmes the school subject-matter in every subject which is taught in secondary schools, *gymnasia*, and normal schools is given more consideration.

The figures for the *fil. mag.* examinations in 1954 and 1955 (given above) show that this new deal has contributed to an increase in the number of degrees. This is even more evident from the figures for 1956: 466 men and 344 women. No final judgment may yet be passed about its prospects of filling the tremendous gaps in teaching. It has already been stated by an expert (*SOU*, 1958 : 21, p. 75, etc.) that there was a strong tendency among students who were graduated in 1955 and 1956 to select those forms of organization of the examination mentioned in note 16 as possible arrangements (*e*) to (*h*). Consequently such *fil. mags.* are not well qualified to compete for positions in the *realskola* of the comprehensive school, where ‘ broad ’ qualification in school subjects is desirable, and they are too weak to teach in a *gymnasium*.

---

[16] For example:

(*a*) Two major subjects with 3 + 3 points + course in ‘psychology’;
(*b*) Two major subjects with 3 + 2 points + course in ‘psychology’ + one subsidiary subject (1 pt.);
(*c*) Two major subjects with 3 + 2 points + ‘education’ (1 pt.);
(*d*) Two major subjects with 2 + 2 points + one other major subject (2 pts.) + course in ‘psychology’;
(*e*) Two major subjects with 2 + 2 points + ‘education’ (2 pts.);
(*f*) Two major subjects with 2 + 2 points + one subsidiary subject (2 pts.) + course in ‘psychology’;
(*g*) Two major subjects with 2 + 2 points + two subsidiary subjects (1 + 1 pt.) + course in ‘psychology’;
(*h*) Two major subjects with 2 + 2 points + one subsidiary subject (1 pt.) + ‘education’ (1 pt.).

(B) The *fil. kand* degree does not qualify a teacher for a position either in a secondary school or in a *gymnasium*, but is often (not always) the first university degree of scholars and scientists, and provides the basic training for the personnel of libraries, museums, archives, and in some departments of the civil service. It is often used as a qualification for appointments in insurance and publishing houses, in film, radio, and newspapers. A special course for journalists, leading to a *fil. kand.*, has been introduced by the University of Göteborg. In one kind of school, *folkhögskolan* (' People's High School ', after the Danish model), there is also a demand of *fil. kands.* as teachers.

The many uses made of a *fil. kand.* depend upon the fact that according to the *Examination Statutes* of 1907, *any three examination subjects* in the Faculty of Philosophy may be combined for the examination. Only 6 points from three subjects were required. The course was intended to take five sessions; the actual period varied between three and ten sessions. Instruction was on the whole the same for the *fil. kand.* as for the *fil. mag.*, but in the reading courses more specialization and variation were permitted and recommended for a *fil. kand.* Frequently, students who selected school subjects preferred to pass a *fil. kand.* first, and then to complete a *fil. mag.* For the period 1910–53 the number of *fil. kand.* degrees per year was much higher than the number of *fil. mags.* The percentage of women who completed their university studies with a *fil. kand.*, on the whole increased.

In the *Examination Statutes* of 1953 the difference between *fil. kand.* and *fil. mag.* was emphasized. Only two subjects were required, and the minimum requirement for the degree is 6 points (a combination of 3+3 is possible). New higher marks (4 and 4·5) were introduced into the point scale (see note 8). If a subject with 4 or 4·5 points is included in the examination, the requirement for the degree is 7 points (4+3 is possible). Since the *Study Programmes* laid down the same quantity of *prestanda* for all marks from 3 to 4·5, the implication is that the *fil. kand.* should be more academic than the *fil. mag.* But on the other hand a *fil kand.* *must* include only two subjects with at least 2 points respectively and *may* include as many examination subjects as desired. A combination of 2+2+1+1, e.g. English (2), German (2), French (1), history of art or history of literature or philosophy (theoretical or practical) (1), is possible. Such a degree, which is not infrequent, indicates a general education at a higher level. But why not take ' education ' as the fourth subject—and you have a *fil. mag.*! It is a fact that the number of *fil. kand.* degrees was lower in 1954–6 than in 1953, although the total number of students in the faculty was much higher. The relation of *fil. kands.* to *fil mags.* was *inverted.*

	1953		1954		1955		1956	
	F.K.	F.M.	F.K.	F.M.	F.K.	F.M.	F.K.	F.M.
Men:								
Natural sciences	126	110	79	143	116	144	126	180
Arts	248	160	201	213	241	235	241	286
	374	270	280	356	357	379	367	466
Women:								
Natural sciences	30	28	30	48	30	45	25	63
Arts	174	157	149	216	172	232	158	281
	204	185	179	264	202	277	183	344
TOTAL	578	455	459	620	559	656	550	810

There is need for a qualitative analysis of the *fil. kand.* degrees before and after 1953 and of *fil. mag.* degrees after 1953 in order to find out, *first*, whether the more academic purpose of the new *fil. kand.* has been fulfilled; and secondly, how many *fil. mags.* after 1953 were but new names for *fil. kands.* according to the regulations of 1907 and 1953.

(C) In the examination system of 1907 the *fil. lic.* degree was the second (higher) degree after a *fil. kand.* or a *fil. mag.* or (after 1935) a *pol. mag.* Requirements of 1 point and 2 points were stated in the *Study Programmes*, but the examination must be passed with at least 2 points in one subject, and 1 point could (and still can) be used only in an additional subsidiary subject. A *fil. lic.* could be conferred in any subject taught in the faculty. The length of the course was not fixed, but varied within wide limits.

The *fil. lic.* was a very good additional qualification to a *fil. mag.*; it placed a teacher in a strong position competitively, but had no economic value. In professions where a *fil. kand.* was the basic qualification, a *fil. lic.* often led to promotion to positions with higher salaries, e.g. a *rektor* of a *folkhögskola* was often a *fil. lic.* In industry there was a large demand for *fil. lics.* in mathematics and natural science. *Fil lics.* in mathematics or statistics were also in demand by the ministerial and central administration and in insurance companies. For appointment as a *lektor* (professor) at a *gymnasium* or as a professor in a Faculty of Philosophy, a *fil. lic.* was an indispensable pre-requisite.

The kernal of the requirements for a *fil. lic.* was and is a written thesis on a selected special problem. In the natural sciences the investigators were, as a rule, required to concentrate on laboratory or field work; the invention of new experimental methods, or new mathematical treatments of selected problems, or new demonstration techniques, were also regarded highly. In the historical and philological disciplines, analysis of primary materials was indispensable. The special problem was often selected in relation to the dominating interests of a famous university teacher. Many such historical, philological, linguistic, archaeological, economic, statistical, and other ‘ schools ’ had an international reputation. Studies abroad were necessary in some subjects, e.g. every modern language, and were often recommended in other subjects.

According to the *Royal Statutes for the Swedish Läroverk* of February 18th, 1905, as revised on November 1st, 1907 (and with many subsequent modifications) a *fil. mag.* plus a *fi. lic.* plus a *fil. dr.* were the fundamental theoretical requirements to qualify for a *lektorat* (professorship) at a Swedish *gymnasium*; this stipulation remained in the new *Statutes* of 1933. During the ’thirties and ’forties the shortage of competent applicants for this kind of teacher post increased, and many *fil. lics.* with long teaching experience were declared qualified as *lektorat* by the Government and appointed to permanent positions of *lektors*. From July 1st, 1952, the old requirement of a doctorate was formally abolished, and a *fil. mag.* plus a *fil lic.* in one major subject is now the normal qualification for such a position; a *fil. lic.* has from the beginning of his teaching career a higher salary than a *fil. mag.* Yet it seemed desirable to have as many *fil. drs.* as possible in the *gymnasia*, and hence a doctor has, as a lektor, a slightly (one class) higher salary than a fil. lic.

Because of this new qualification value of the *fil. lic.*, some alterations in the requirements for a *fil. lic.* were introduced into the *Examination Statutes* of 1953. It seemed desirable that the marks which are given exclusively by one professor to a *fil. lic.* should be in some way controlled. This explains a very remarkable stipulation (§ 26) which has been much discussed. It reads as follows:

> *1st mom.* A [written] thesis for the *lic.* degree shall, unless the Rector of the University, considering reasons of secrecy, decide otherwise, during three weeks of a current session be accessible in an institution or a seminar room or the office of the department—under the responsibility of the examining professor—to the representatives of examination subjects at the university itself and to the representatives of the subject in question at every other Swedish university. Before the thesis is made accessible for criticism, the examining professor shall inform (1) the office of the department, so that it will be registered and announced by the department, and (2) the named representatives of the subject in question at other universities. This information shall include the name of the author of the thesis, its title, and the room where the thesis will be accessible.

2nd mom. After the thesis has been accessible for criticism, the examining professor shall notify to the department which mark he wants to give to the thesis. *Statements in the department concerning the valuation of the thesis shall be recorded in the minutes.*

The period of study for a *fil. lic.* is now reckoned as three to four years. In fact, the variation is still large, but it seems probable that the average time is decreasing.

In spite of the higher qualification and economic value of a *fil. lic.*, there seems to be no steady increase in the number of graduates. In relation to the number of *fil. mags.* and *fil. kands.* in the faculties[17] there is, on the contrary, a decrease on the whole in the arts subjects, and only a slight upward trend in the natural sciences.

(D) The *fil. dr.* degree may be conferred by the Faculties of Arts and of Natural Sciences to any *fil. lic.* who is the author of a printed thesis which he has publicly defended and which is approved by the faculty (or department). It can be classified from 1 to 3, proposed in earlier times by the representative of the subject in question, and nowadays by a special committee, *betygsnämnd*, constituted partly of permanent members elected by the faculty, partly by the professors of the special subject in question, and sometimes of experts. The opinions of those two experts who have publicly criticised the thesis, the so-called opponents (one elected by the faculty, the other one by the author), are, as a rule, considered.

Before 1952 a *fil. dr.* was the decisive qualification for *lektorat* at the *gymnasium* and for a teaching position at the university. Nowadays it is (almost) indispensable only to an assistant professor (*docentur*) at the university.

The time interval between taking the *fil. lic.* exam and defending a doctoral thesis is on the average shorter in the natural sciences than in arts subjects. The natural scientist can, as a rule, use his *lic.* thesis, somewhat refined, as a doctor's thesis; very often the arts scholar must complete his material, for example, by studying in foreign archives, museums, and libraries; or by discussing his results with earlier specialists in the field; or by making a deeper analysis of his problems; or (usually) by re-organizing the material into the form of a readable book.

The number of doctors' theses defended during the last ten years makes it evident that there is no increase in the quantity of academic work. The total figures for 1947–51 were: arts 202 (21 women), natural sciences 121 (6 women); for 1952–6: arts 207 (18 women), natural sciences 134 (14 women). These figures might be compared with those of *fil. kand.*+*fil. mag.* degrees during two earlier six years periods: 1941–5: total 3,054 (1,799 men, 1,255 women); 1946–50: total 3,198 (1,992 men, 1,206 women). The number of doctors' theses during 1947–51 is, as a percentage of the basic degrees for 1941–5, a total of 10·60 (men 16·5, women 2·15); the percentage of theses presented during 1952–6 of the lower degrees granted in 1946–50 was a total of 10·66 (men 15·01; women 2·64). This fact is depressing, because more grants for studies leading to the *fil. lic.* and doctors' degrees were offered during 1952–6 than during 1947–51.

---

[17] It is not necessary to consider the very few cases in which a *pol. mag.* is the basis for a *fil. lic.* The sole effect of taking the *pol. mags.* into account would be to make the given percentages on the whole, and in the arts subjects somewhat lower. Nor is it necessary to take into account that some *lics.* in every year have both a *fil. kand.* and a *fil. mag.* This fact must make *all* the percentage values somewhat *higher*, but does not change their relations considerably.

The causes of the stagnation are probably many, but it seems evident the lack of incentive is due to the fact that after 1952 a *fil. lic.* qualified a man as *lektor*. Another important development has probably had the same unintentional effect, namely the increasing number of university assistants (*amanuenser, assistenter*) in the Faculty of Philosophy. These posts have absorbed a large number of *fil. kands.*, *fil. mags.*, and *fil. lics.*[18] These assistants were highly desirable for different instructional tasks and research, but their work have not allowed them the necessary time to concentrate on their own field of investigation; they thus tend to remain as a kind of lower university teacher.

In Sweden it is a general and deep feeling that there is a conflict between, on the one hand, the ever-growing need for expert knowledge and technical skill in every profession, and on the other, the limited character of the university or institute education. The present compromises have their obvious deficiencies. (1) There is a strong tendency towards a uniformity of education which neglects the students' special capacities, interests, and working habits, and which unduly favours those who easily and uncritically assimilate limited, well-prepared, and well-presented data. (2) There has been a kind of social, cultural, and political sterilization of the professional groups because of their lack of wider experience and deeper reflection on human problems; the risk of 'idiocy of specialisms' (*fackidioti*) is often discussed and deplored. (3) There remains a considerable, and growing, influence of fortune, family, or corporative relationships, and, above all, of party-political relationships, on the selection of persons for higher positions. As a laborious, reliable, and shrewd party member, the young graduate has a qualification which takes precedence over any other. The result is a growing tendency among students to regard intellectual work as a necessary evil.

---

[18] In 1945 the number of assistants was 106 (natural sciences 80, arts subjects 26); in 1950: 305 (215, 90); in 1955: 361 (247, 124), and in 1956: 400 (264, 136).

(E) Most present professors of the natural sciences and arts subjects were *docents* before they were promoted. The main requirement for a *docentur* (assistant professorship) is a doctor's thesis which the faculty regards as an original and promising contribution to research or scholarship. The position of *docent* is in itself only a *licentia docendi* granted by the university chancellor. A *docent* has no salary. A limited number (until 1939 very low) of grants for six to seven years is offered. They are combined with teaching duties. Some *docents* without salary were formerly allowed to receive (low) fees for their instruction.[19]

In 1926 a total of five (later seven) larger and new grants were made to both Universities (Uppsala and Lund) and the Karolinska Institutet. They were called *forskarestipendier* (research grants), and were not combined with teaching duties.

In 1939 the amounts of both kinds of grant were increased, and in 1949 they were again revised in the light of the decreasing value of money. More grants were made, and the position of *docents* was somewhat changed. After three years' service he has leave of absence from teaching for one year; his service is counted (*tjänst*) for his state pension (at the age of 65, now 66 years) if he has a stipend. On the whole his economic situation is now as good as that of a *lektor* at a *gymnasium*, and when he substitutes for a professor (*vik. professor*) his salary is adequate. Many grants of both kinds are made to the universities of Stockholm and Göteborg. A *forskarestipendium* is now combined with a comparatively small teaching load (two hours weekly).

The average age of a *licentia docendi* has slowly decreased since

---

[19] *The situation of the docents* may be illustrated by some figures:

	1910	*1920*	*1930*	*1940*	*1945*
UNIVERSITY OF UPPSALA:					
Faculty of Arts:					
Docents (total)	35	38	44	52	59
Docents with grants	12	7	15	17	16
Faculty of Natural Sciences:					
Docents (total)	20	24	26	36	35
Docents with grants	9	8	12	12	11
UNIVERSITY OF LUND:					
Faculty of Arts:					
Docents (total)	25	26	28	36	41
Docents with grants	9	10	15	14	16
Faculty of Natural Sciences:					
Docents (total)	14	19	25	32	36
Docents with grants	4	5	9	11	11

1910; during the last ten years it has been about thirty-two years. The average age for appointment to a permanent professorship is about forty years (the limits are, of course, very wide). Under the miserable pre-1939 conditions, Swedish scientists and scholars very often did their finest work as *docents*; after the recent improvements it is generally recognized that they now have the opportunity of raising the quality as well as the quantity of their academic work.

ELOF ÅKESSON.

BIBLIOGRAPHY

Betänkande ang. utbildningen av lärare vid de allmänna läroverken och med dem jämförliga anstalter ("The Education of Teachers at Secondary Schools, *Gymnasia*, and other Comparable Schools", Report by experts). *SOU*, 1938:50.

Betänkande och förslag rörande docentinstitutionen ("The Position of Docents", Reports and proposals by experts). *SOU*, 1939:41.

Studiehandbok [*Study Directory*] *för de studerande inom Filosofiska fakulteten vid universitetet i Lund I—III.* (Gleerupska universitetsbokhandeln, Lund, 1946.)

Studiehandbok för de studerande inom Humanistiska fakulteten. (Håkan Olssons boktryckeri, Lund, 1957.)

Studiehandbok för de studerande inom Matematisk-naturvetenskapliga fakulteten. (Håkan Olssons boktryckeri, Lund, 1957.)

D. Hannerberg, *Kungl. Maj:ts stadga angående filosofiska examina, utg. med kommentar.* [*Examination Statutes of* 1953, with commentary.] (Almqvist Wiksell, Stockholm, 1954.)

CHAPTER TWO

Professional Studies in the University and in Special Professional Schools—France

THE Industrial Revolution, which began in France in the second half of the nineteenth century, took firmer shape at the beginning of the twentieth century, and which is to-day gaining momentum, calls for an ever-increasing number of engineers and technicians. This was a revolution which was eventually to overthrow the scale of values which had prevailed at the time of the creation of the French University. It is of great interest to follow the course of the changes brought about by the pressure of events in old institutions, by means of the introduction of new courses, new teaching methods, and new principles for the recruitment of students. Moreover, the need for technicians was so great that it brought about the creation of many new schools; and it is extremely interesting to see how new institutions have been established in an old country which is highly centralized and in which the State plays a considerable part—notably in educational matters—and to see the part that private enterprise has played in the creating of these schools.

We shall examine in turn, from this point of view, first the French Universities and the modifications which have had to be made in their statutes and, indeed, in the ideals which inspired them; then technical education, the *grandes écoles scientifiques de l'État* (the State Colleges of Science), and finally the *grandes écoles privées* (private colleges).

Napoleonic Reorganization and the Liard Reforms

In order to understand the difficulties that the French University has had to overcome in order to direct higher education into professional channels, we must go back a little in history.

At the end of the eighteenth century, at the time of the French Revolution, some of the French Universities were among the most famous in the world and had had a most brilliant reputation in the Middle Ages. But from the beginning of the fifteenth century they had begun to turn in upon themselves and to sink into mediocrity, remaining outside the Renaissance movement. It was quite apart from the universities, and even in opposition to them, that there were created, in 1530, the *Collège de France*, and in 1635 the *Jardin du Roi*, now the Museum of National History. The universities were suppressed by the

Revolutionary Governments, which were in no way hostile to higher education or to scientific research, but were strongly opposed to corporations. The men of the Revolution did not have time to create the higher education of their dreams; they established only, in 1794, two special schools, unconnected with each other: the *École Normale Supérieure*, to educate teachers for grammar schools, and the *École Polytechnique*, to produce government engineers and army officers.

It was Napoleon I who, by the decree of May 1st, 1808, organized the French University system; in each of the seventeen *académies* he revived, in essentials, the old faculties: Faculties of Law, Medicine, Science, and Arts. But he gave them quite a new character. They became State organizations, entirely and directly administered by the Government, which undertook to collect the fees paid by the students and to meet all expenses. Their aim was to guarantee "the advancement of higher learning and the granting of degrees". This last was not the least important. The point was to provide qualified persons for the situations and professions for which the State required guarantees. Hence were established the three qualifications which are still the three main qualifications granted by higher education: the *baccalauréat* (General Certificate of Education), the *licence* (first university degree), and the *Doctorat d'État* (State Doctorate). It is still necessary for a man to hold a law degree to practise as a lawyer, a degree in arts or science to become a grammar school teacher, a State doctorate to become a teacher in higher education, or a degree of Doctor of Medicine to practise as a doctor.

Thus, though the faculties of the different disciplines sometimes found themselves occupying neighbouring premises, they existed for a long time in isolation, knowing nothing of each other's affairs, each faculty having its own organization, its statutes, its own particular atmosphere. As a result of their strict compartmentalism, it was difficult for them to embrace the new disciplines that arose from the progress of science or to extend their spheres of action.

It was not until the law of July 10th, 1896, prepared by the great administrator Louis Liard, that the 'Boards of Faculties' were united and took the name of universities. At the same time, a General Council of the Faculties was created; it took the name of the *Conseil de l'Université* (University Council) and had legal status and financial autonomy. Though university teachers were still paid by the State, each University had its own income (tuition fees, registration fees, library fees, and laboratory fees paid by the students). The universities did not become independent corporations, as they had been under the Old Régime, they remained public institutions; but they were no longer, as were the Faculties of the Second Empire, merely a State Department directly and wholly administered by the central authority. They had their own lives; they administered their own finances. The University Council, composed of university teachers elected by their colleagues, had full disciplinary powers over students and teachers. Teachers were appointed by the Minister of Education, but only on the recommendation of the Universities Consultative Committee and of the Council of the Faculty concerned. The underlying principle of the recruitment of teachers was, therefore, primarily that of co-option, with the approval of the central authority. The universities were empowered to receive grants or gifts, and with these resources they were at liberty to establish new subjects of study, new posts, laboratories, and so on.

Thus there are at the present day two aspects of the life of the French University; one which derives from the past, with the role of the State very important, if not all-important[1]; the other arising from the freedom and power of initiative given to the universities, in which the role of the State is, in principle, confined to the power of supervision. There is here a juxtaposition of ideas: that of the earlier French faculties of the Napoleonic type and that of the Anglo-Saxon type of university.

Post-Liard University Developments

The responsibility of granting qualifications—*baccalauréat, licence, doctorat*—weighed very heavily, nevertheless, on the organization and the orientation of the teaching of the universities. It weighed heavily,

---

[1] This can be seen from the accounts. Here, for example, are the accounts for 1957 (staff and equipment):

TABLE I

	Salaries and Emoluments Paid by the State	*Receipts of Universities and Higher Establishments*		TOTALS
		State Grant	*Private Incomes of Universities and Establishments*	
	francs	*francs*	*francs*	*francs*
University of Paris .	938,640,337	5,467,969,500	871,008,209	7,277,618,046
Provincial universities	5,540,059,163	7,645,942,000	2,306,950,000	15,492,951,163
Higher establishments	1,608,686,636	469,138,229	207,907,600	2,285,734,465
TOTALS . .	8,087,388,136	13,583,049,729	3,385,865,809	25,056,303,674

too, on the very ideas that the teachers formed of their methods and their purpose. It is likely that it is this centralized administrative origin, dating from Napoleonic times, that for a long time prevented French higher education from adapting itself to changed economic conditions, prevented it, particularly from meeting the need for technicians which was beginning to be felt. Let us recall, in this respect, how, when Jules Raulin of the Pasteur Institute was appointed to the Chair of Applied Chemistry at the former Faculty of Science of Lyons, and ventured to take an interest in the practical applications of this science, a State inspector was dispatched in haste to Lyons to make sure that the new professor and the new laboratory were not going to wander into byways inconsistent with the dignity of science.

Before very long, however, as new needs made themselves felt, the universities, taking advantage, from 1896 onwards, of the freedom given by their statutes, established new courses which were often financed, at least partially, by local bodies, and consequently adapted to local needs. The setting up, from 1920 onwards, of *certificats d'études supérieures* (certificates of advanced studies), certain combinations of which gave a *licence*, helped to establish these courses. *Instituts* (institutes) were also established in most French Universities, in accordance with the decree of July 21st, 1920. They are attached to one or other of the faculties or to the university itself. Faculty or university institutes have no independent character, but are an integral part of the university or faculty to which they are attached. They are directed by a professor who represents them on the Council of the Faculty or of the university. Some of them, however, such as the national schools of medicine or pharmacy, have their own organization and their own finances and possess a council and an assembly.

The *instituts* are, generally speaking, centres of teaching and research of a specialized nature, justified by the interdependence of certain subjects at the present day. Some of them have met with such success and fulfilled such a need that they were transformed, from 1947, into *écoles nationales supérieures d'ingénieurs* (National Colleges of Engineering) and have thus become real '*grandes écoles*' in the traditional sense of the term; they are directed by university teachers of the Faculty of Science with which they have a close administrative connexion. Certain of these schools have a very high reputation, for example the *École Nationale des Industries Chimiques* (National College of Chemical Industries) at Nancy, the *École Nationale Supérieure d'Électrotechnique et d'Hydraulique* (National College of Electrotechnics and Hydraulics) at Grenoble, *l'École Nationale Supérieure Agronomique* (National College of Agronomy) at Toulouse, among others.

Situations are found for the students by the college authorities or by active Associations of Old Students. The transformation of certain *instituts* into *écoles nationales supérieures d'ingénieurs* has made it possible to standardize the level of work, to regularize administration and finance, and to establish some collaboration between higher education and technical education.

Research and teaching in the *instituts* and the *écoles nationales* are clearly directed towards a definite, practical goal, except in the case of certain *instituts* which are directed, at least for the present, towards pure research, such as the Institute of Nuclear Physics at Lyons. The general teaching of the Faculties of Science, on the other hand—the courses which lead to the *licence*—is still orientated towards a general scientific training. It is teaching given by a lecture method, which allows large groups of students to benefit from observing the ideas and methods of lecturers who are often eminent in their field. But the practical experience of students holding the *licence* is insufficient for industry. Future engineers must be accustomed to work together in teams in the laboratory. This need was so great that courses more advanced than the *licence*—and inspired by quite another ideal—had arisen spontaneously in recent years in the Faculties of Science. And it was to coordinate these efforts and to facilitate their development that, in 1954, a third stage (*troisième cycle*) of teaching was created in the Faculties of Science. Its object is to give the students advanced knowledge in a special field and to introduce them to research. These third-stage students do not attend abstract lectures on general methods: they are taught by practice and demonstration the methods and techniques which are applicable precisely to their chosen field of study. Working in small groups, they learn to work as a team and begin to appreciate the pleasures of research and discovery. The period of study is for a minimum of two years. It culminates in a doctor's diploma (*diplôme de docteur*), awarded to candidates who have successfully presented a thesis containing original work in a special field. This diploma differs from that of the *Doctorat d'État*, which requires long years of personal research and the possession of which is essential for a teacher in a university faculty. The doctor's diploma is of a more modest standard and is evidence of the efforts made by the university to modify its ideals and its methods. Created by Napoleon to fulfil the needs of the administrative services and the liberal professions, the University—through the Faculties of Science, which, owing to the pressure of events, have become its spearhead—is now boldly moving towards the practical training of engineers and research workers. It is unnecessary to point out that as a result of this development the supply of science teachers for secondary schools has fallen grievously.

The Industrial Revolution has led the Faculties of Science to find themselves in yet another way at the head of the intellectual revolution that it set in motion. Students—that is, the pupils of the various faculties—had for a long time been drawn from the middle classes. Scholarships for higher education, liberally awarded, have enabled them to be drawn more widely from other classes. But the feeling of caste and privilege never dies in any society. In France, its last stronghold was the university qualification, to which it had attributed new glory. The *baccalauréat* was considered almost as much a social qualification as an academic one. And it was essential for entry to the universities. Exemptions were granted, grudgingly at first, then more liberally, and the final step in this direction has just been taken: the National Institute of Applied Sciences at Lyons—the direction of which has just been given to an eminent university teacher, *monsieur le Recteur* Capelle, whose doctorate thesis on gears is a standard work—opened its doors in October 1957 to receive students who were not required to take any entrance examination and who did not even have the *baccalauréat*. Thus, after consultation of school records and an interview by a panel consisting of a university teacher, a vocational guidance officer, and an industrialist, it was possible to admit, alongside pupils who had just passed the *baccalauréat*, pupils coming from the *écoles nationales professionnelles* which form part of technical education.

At the end of a first year of study, in the course of which some five hundred pupils are arranged in groups, a selection will be made which will make possible the training, in two years, of technicians, and in three years, or more exceptionally in four, of engineers in various special branches.[2]

Technical Education and the State

The collaboration of the Department of Higher Education in the Ministry with the Department of Technical Education in the matter of the recruitment and training of pupils of the *écoles nationales supérieures d'ingénieurs* and of the *Institut National des Sciences Appliquées* at Lyons draws attention to the development of technical education organized by the State. And here we find an interesting development.

---

[2] We must add that a university entrance examination for pupils not holding the *baccalauréat* is again envisaged for 1958. This examination includes first an oral examination, then written papers. Its purpose is simply to make sure that the candidate has the minimum knowledge necessary to follow the courses for which he wishes to register. Last year, 203 candidates took the entrance examination in the Faculty of Arts and 85 were admitted; 167 took the examination in the Faculty of Science and 57 were admitted; 122 took the examination in Law and 21 were admitted. These figures are low, but they do show a real intention to reorganize and to widen the scope of university education, and it is important to point this out.

While the teaching of the universities was theoretical teaching of a high standard, at first confined almost entirely to the middle classes, the teaching of the *écoles professionnelles* had a humble beginning in the necessity of training skilled workmen or master craftsmen. These schools drew pupils only from the working classes. And while, as a result of the pressure of events, the former teaching tended towards adding practical work to theoretical and to wider recruitment of pupils, the second type was progressively raising its theoretical standards. And the fact that they have drawn together and formed an association shows clearly that a considerable revolution has taken place both in institutions and in ideas.

The history of technical education—less well known than that of higher education—is therefore of very great interest also.

The first technical schools arose in the course of the nineteenth century as a result of private enterprise. They were, above all, intended to supply manpower for industry and commerce. In 1850 there already existed three schools of arts and crafts (*arts et métiers*), the *Conservatoire des Arts et Métiers*, which later became the *École Supérieure de Commerce* of Paris, the La Martinière School at Lyons, which was the earliest professional school in France, and the *École Centrale des Arts et Manufactures*, of which we shall have more to say later. But it was not until 1880 that real professional education organized by the State came into being, when the International Exhibition of 1878 had revealed the weaknesses of our industrial production. A law of December 11th, 1880, established four *écoles manuelles d'apprentissage* (apprenticeship schools), placed under the joint authority of the Ministry of Commerce and the Ministry of Education. In 1892, a further stage, the Financial Law instituted *écoles pratiques de commerce et d'industrie* (commercial schools). The full complement of these schools rose from one thousand seven hundred pupils in 1893 to twenty thousand in 1913. The standard of achievement is fairly low and recruitment is entirely from among the children of workmen or artisans.

In 1919, the Astier Law gave technical education its basic charter. A tax known as the 'apprenticeship tax', established in 1925, and levied on all employers who do not train their own apprentices in accordance with standards laid down by the State, makes employers take their share in financing the professional schools and courses. From that moment technical education developed rapidly. At the same time its standards were improved. The importance of the education given in the *collèges techniques* and the *écoles nationales professionnelles* is established in public opinion by the setting up of a *baccalauréat technique*, which is prepared almost exclusively in these schools.

Several schools established in the last century, and now under the

Department of Technical Education, are of considerable importance. And others are being set up. We shall refer to a few only. First come the *écoles nationales des arts et métiers* (national schools of arts and crafts) which drew their pupils originally from the working classes or the lower middle classes, after a fairly easy entrance examination; the competitive entrance examination is now difficult, of about the standard, from the point of view of theory, of a good *baccalauréat* in mathematics, and it includes, in addition, certain practical tests; attempts are being made to attract to this entrance examination pupils of the *classes de mathématiques supérieures* (science side of the Sixth Form) of the *lycées* (grammar schools) by allowing an exemption which would cut out the practical tests. The first three years of the course are taken in the provinces, the fourth must be taken in Paris. Engineers from the *arts et métiers* are highly thought of in industry.

Then comes the *École Centrale des Arts et Manufactures* (Central College of Arts and Manufactures) founded in 1829 in Paris, which has grown considerably and of which the reputation almost equals that of the *École Polytechnique*.

Finally, there is the *Conservatoire National des Arts et Métiers*, founded in 1819 to give higher education in applied sciences in industry and commerce. It is a unique establishment of higher technical education intended to allow those who work during the day to acquire new knowledge and to complete their technical education. There are fifty-two courses. Here are some of them : technique of X-rays and structure of metals (begun in 1948); general radio-electricity (begun 1949); chemistry in applied science and nuclear industry (1950); nuclear physics and its practical application (1950); physics and refrigeration and its use in industry (1952); radio-electric transmission (1955). The number of registered students exceeds twenty thousand. It is the scientific courses of general interest that attract the greatest number of students (about five hundred to a thousand); the more specialized courses attract fewer students (less than one hundred on the average). And only students who show by examination that they have adequate knowledge are admitted to practical classes. The engineer's diploma (*diplôme d'ingénieur*) of the *Conservatoire National des Arts et Métiers* is awarded, after examination, to candidates who have obtained a certain number of certificates required by regulation and who have completed a period of practical work in industry corresponding to the special field of their diploma. The length and difficulty of this course, for candidates who are generally studying at the same time as they are following their regular employment, explains why so few candidates are successful each year in obtaining their diploma (25 in 1942, 56 in 1955, 66 in 1956). The diploma is, however, sound and of good standing, and the numbers awarded are increasing rapidly. And the effects of this course are felt in spheres other than the merely economic. Students who have been successful have shown qualities of character and of intellect which are manifestly obvious. Those who are unsuccessful, or who abandon the course, have reached the limits either of their intellectual capacity or, more often, of their powers of perseverance: they cannot blame anyone except themselves for their failure. And now this means of gaining promotion in industry, an opportunity open to all, is spreading rapidly from the *Conservatoire des Arts et Métiers* throughout the provinces. Six associated centres have been opened in Lille, Lyons, Mulhouse, Bordeaux, Rheims, and Clermont-Ferrand. The establishment of four or five other centres is envisaged and will be carried out, thanks to the unanimous support of industrial organizations, Faculties of Science, municipal authorities, chambers of commerce, and associations of qualified engineers. This is an achievement which does credit to a government and a country.

Government Establishments—the Grandes Écoles

It was inevitable that side by side with the universities and the establishments of technical education, Government establishments providing higher education should continue and additions should be made to them. Such establishments already in existence, in fact, are anxious to preserve, as far as possible, their independence. They have a natural tendency to make themselves self-sufficient by supplying for themselves the branches that they need.

Thus each of the Ministries has its school or schools for the training of higher personnel [3]:

The Ministry of Agriculture has, amongst other schools, the *Institut National Agronomique* (National College of Agronomics).

The Ministry of Defence has, amongst other special schools, the *École Polytechnique*, the *École Supérieure du Génie Maritime* (College of Marine Engineering), the *École Nationale Supérieure de l'Aéronautique* (National College of Aeronautics).

The Ministry of Industry and Commerce has the *École Nationale des Mines* (National Mining College) in Paris and in St. Étienne.

The Ministry of Postal and Telegraph Services has the *École Nationale Supérieure des P.T.T.* (National College of Postal and Telegraph Services) and the College of Telecommunications.

---

[3] Notice, too, that since 1945 there has been in existence an *École Nationale d'Administration* (National College of Government Administration) attached to to the *Présidence du Conseil*, for the training of the higher ranks of Government administrators.

The Ministry of Public Works has the *École Nationale des Ponts et Chaussées* (National College of Civil Engineering).

The Ministry of Education has its *écoles normales supérieures* (for grammar school teachers).

The Atomic Energy Commission has created a school at the Saclay Centre.

Entry to all these schools is by means of a very difficult competitive examination, but all of them guarantee, to those who are successful, a career which is at least desirable and which may, in many cases, be brilliant. Inevitably, this being the case, the most gifted children of working-class or poor families who have shown ability in the course of their secondary school careers have been encouraged to enter for the competitive entrance examinations for the State '*grandes écoles*'. These entrance examinations are prepared for in the *classes supérieures* (special Sixth Forms) of the *grands lycées* (the more important grammar schools), which have for some time now absorbed the best pupils from the scientific side. And indeed the atmosphere of the '*Taupes*' (the name given to the class of the *lycée* which is preparing to take the entrance examination for the *École Polytechnique*)—as indeed, is that of the '*Khâgnes*', in which are the pupils on the arts side who are preparing to take the entrance examination of the *École Normale Supérieure*—is exceptional. The pupils do an overwhelming amount of work, the effects of which are felt for a long time by the less robust or the less able, if indeed they manage to complete it. It is an atmosphere of concentrated work, but an inspiring atmosphere too. The *classes supérieures* of the *grands lycées* and the *grandes écoles* thus constitute, as it were, a specialized higher education which has its virtues but also its faults. Not only is the work exhausting but it calls sometimes for unnecessary effort, and changes of syllabus lag far behind changes in findings, ideas, and methods in scientific fields. In fact, this part of the French university system is the one which has followed most closely the lead given by Napoleon. For some years now there have been noticeable signs of a movement of students away from the *grandes écoles* towards the Faculties of Science. This movement may gain ground if deserving students receive from the State financial aid similar to that received by the '*Taupins*' (pupils of the special class preparing for entrance to the *École Polytechnique*) and if the third-stage studies enable those who complete them successfully to find easily a desirable or a brilliant career.

We must not end this rapid review of the *grandes écoles* of the State without devoting a few lines to the most famous of them: the *École Polytechnique*. Established by a decree of the *Convention*, the *École* was intended primarily to provide artillery and engineering officers for the Army and the engineering personnel for the public services. For a long time only candidates who came out among the first in the *École's* final examination could choose between a military career and a career as an engineer in the public services. In the latter case they then entered an *école d'application* (practice school) and received the necessary technical instruction along with other students who had come directly to the school and were preparing to enter private industrial firms. The need for technicians is so great to-day, and the prestige of the *École Polytechnique* is so high, that almost all students of the *École* who do not enter government service are immediately snapped up by industry at the end of their course. And we must add that many of the men who are the leaders of the nation, either in administration or in industry, are former students of the *École Polytechnique*. The only distinction which will bear comparison with that of being a former student of the *École Polytechnique* is, in certain circles, that of being a former student of the *École Normale Supérieure*.

It may be said that it was, above all, the prestige of the *École Polytechnique* that drew the best pupils of the *lycées* to prepare for the entrance examination of the *grandes écoles*. They were eligible to take the examination three times, and there were few who did not try their luck three times before giving up. This caused a certain amount of overwork and cramming and it is for this reason that the decree of February 7th, 1958, has now made it possible to take the examination twice only. This is a considerable improvement: pupils will henceforth be able to take their *baccalauréat* as late as the age of 19 and still have every opportunity of taking the entrance examination of the *École Polytechnique*. They will be able to begin their *lycée* course a year later, and ambitious mothers planning for the future of their children will no longer find it necessary to teach them to read at the age of 5.

Private Education

So far we have spoken only of education provided by the State. But private higher education exists also. Since the law of July 12th, 1875, it has been possible to set up private establishments for higher education in France. Any Frenchman over the age of 25, unless he has been declared incapacitated, may open a private establishment for higher education. No qualification is required, a statement of intention is sufficient.

Amongst these private establishments, some belong to religious organizations: theological faculties of various denominations, higher seminaries, Catholic faculties. Others are non-religious in character, in which case they are either scientific establishments such as the *Institut*

Pasteur[4] or, often, technical schools set up for various special reasons.

Most of these establishments award a private diploma on their own responsibility. Those which, after inspection by the Department of Technical Education, have proved that they have adequate premises and equipment and satisfactory teaching, are authorized to award an engineer's diploma. These establishments are thirty in number. Some of them enjoy high public esteem. We quote two only, as examples: the *École Bréguet* in Paris, which awards the Diploma in Electronic Industries, and the *École Supérieure d'Electricité* in Paris, whose Diplomas of Electrical Engineer and Radio-Electrician are very highly thought of.

Special mention must be made of establishments which, at the same time as preparing for private diplomas, prepare for State examinations. They are then entitled to be called faculties (medicine, arts, science, law) if they have at least the same number of teachers holding a doctor's degree as the State faculties which have the smallest number of Chairs, and if they can prove that they have adequate equipment—lecture rooms, libraries, laboratories, hospitals, and so on.

The private faculties that are thus recognized are authorized to enter their students for State examinations, but cannot themselves conduct these examinations. Though there is no State monopoly of higher education, the State has reserved the right to award certain qualifications which are necessary to enter certain professions of a public nature. The regular students of the private faculties, whether religious foundations or not, must therefore take the examinations set by the State faculties. Two Catholic faculties, those of Lille and Lyons, have set up *instituts techniques professionels* which have a high reputation.

The Future

And so we come to the end of this review, which, long as it is, is yet—as may be imagined—very incomplete. We have tried to show particularly how the Industrial Revolution, which for its stability and progress calls for constant serious effort on the part of a chosen personnel of various kinds and of growing proportions, makes it necessary to recruit students more widely, yet selectively; in fact, on a democratic basis. It requires a transformation in the organization and sometimes in the ideals of the older institutions. This was relatively easy to accomplish in France, as far as higher education provided by the State was concerned, because a fundamental reform was introduced in 1896 which gave a fairly considerable degree of autonomy to the faculties and Universities. The growth of *instituts* and *écoles nationales* alongside the Faculties of Science, the creation of a third stage of studies, completed by the *diplôme d'ingénieur Docteur* (doctor's diploma) are important developments to notice.

---

[4] The *Institut Pasteur*, founded in 1888 as a result of *international* subscription, is at once a research centre for microbial diseases, a centre for the preparation of serums and vaccines, a medical establishment with a teaching hospital, and, to a certain extent, an establishment of higher education, which does not, however, hold any examinations or award any qualification.

However, the need for trained technicians and engineers was so great that the Department of Technical Education in the Ministry of Education—a Department which was for a long time an Under-Secretaryship with a considerable degree of autonomy—was at the same time raising the standard of its courses, training its own qualified engineers, and was quite prepared to collaborate with the Department of Higher Education to establish *écoles techniques supérieures* (technical colleges).

Yet a third line of development came into being as a result of social as well as economic pressure. The best science pupils of the *lycées* received theoretical training of a most advanced kind of the *classes supérieures* of the *grands lycées* which prepared them to take the difficult competitive entrance examinations of the *grandes écoles*. The *grandes écoles* and the Faculties of Science may be said to compete with each other to a certain extent.

All this concerns State institutions, and it is important to point out that their establishment, working, and development depend partly on the constant collaboration of qualified representatives of industry. Many of them, moreover, receive considerable material help from private industrial firms, help which in some cases is given spontaneously, as in the case of some *instituts*, but which in other cases has been required by law (let us recall the existence in France of an apprenticeship tax levied on all employers who have not their own apprentice schools).

Private technical schools have also been set up and several of these have a considerable reputation. The standard of the *diplôme d'ingénieur* (engineer's diploma) is maintained by a Commission appointed by the Department of Technical Education.

And so France, an old country, highly centralized, with strict State control in matters of education, has allowed full scope to private initiative in higher technical education and has even collaborated with this private enterprise. At present, France is making a great effort towards reorganization and renewal, in an attempt to outstrip her present achievement, not only in the technical sphere, but also in the social sphere, as required by the Industrial Revolution with its demands for large numbers of technicians, each having his true place as a human being in society, earned in his own right, and not by mere accident of birth. And so we have the paradox of France, a country liberal yet highly centralized, traditional yet revolutionary, incapable of envisaging a future not governed by Reason, yet capable of making empirical experiments which, from time to time, she reduces to order—more or less. . . . We shall see in years to come the results of this great effort, in which are reflected the weaknesses, the aspirations, and the spirit of France.

ROGER THABAULT.

CHAPTER THREE

Professional Studies in the University and in Special Professional Schools—Brazil

In the last twenty years higher education in Brazil has undergone great changes. These show two general trends: (1) there has been a considerable growth of the university system, and (2) studies have been diversified and re-orientated, with a view to adapting them to the new requirements of the country's economy.

The extent of the expansion of studies may be readily recorded. During the period 1935–55 the increase of the country's total population was 60 per cent (from 36 to 58 millions). The number of institutions of higher learning, whether or not grouped into universities, increased, however, from 265 to 804, i.e. by more than 200 per cent. The number of students rose from 26 thousands to 75 thousands. In 1935, Brazil had only three universities (Rio de Janeiro, Minas Gerais, and São Paulo); in 1955 it maintained 15; and at present there are 19 universities.

From the standpoint of the diversification of studies, it should be noted that formerly university degrees were offered in only 22 subjects, including the fine arts degrees, whereas to-day there are more than 100 possible degree courses. Entirely new branches of professional and technological training have been instituted (economics, mechanics, electricity, petroleum, aviation, public and business administration, library sciences, journalism, education, and social welfare services).

All this has been expensive. The public authorities (state, Federal, and municipal) to-day spend fifteen times more on higher education than they spent eight years ago, and private schools of the same educational level spend ten times more. It must be borne in mind, however, that during this period inflation swept through the country; if prices are re-adjusted to those of 1948, it will be found that expenditure has, in fact, tripled. The rate of increase is equivalent to that of the national income, but this same rate of increase did not take place at the other educational levels, namely, primary and intermediate.

What are the reasons for such a rapid increase in higher education and for the new opportunities it offers? A general explanation may be found in the transformation of the country's economic structure and in the social changes thus caused. For more than three centuries, Brazil's economy was extensively agricultural; it was based on large properties and Negro slavery; the latter institution prevailed until 1888, that is, until one year before the fall of the Empire. Then there began a slow movement towards a different type of economy. Immigration from Europe began to increase at the end of the last century and resulted in a sharp rise in population (14 million in 1889, 30 million in 1930); simultaneously, new cultural factors were introduced into the country. Since that time, the rate of European immigration has decreased substantially, but measures taken to wipe out endemic diseases also led to a large increase in the population. At same time the urban population was augmented. In 1920 the gainfully employed rural population accounted for 72 per cent of the total, while at present it represents only 57 per cent.

Production patterns changed too; the single-crop economy (coffee) gave way to multiple crops (cereals, cotton, cacao, oil seeds, fruits) and the first steps towards industrialization were taken. Launched immediately after the end of World War I, this movement was greatly intensified after 1930. In 1920, the value of industrial production was estimated at 3 billion *cruzeiros*[1]; in 1940, 17 billion, and in 1950, 116 billion.

Technological development did not, of course, take place at the same rate throughout the country. It was more rapid in the southern region (São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul) and in part of the eastern region (the Federal District, Rio de Janeiro, Minas Gerais). Here, the relative growth and the diversification of higher education was greater than elsewhere. Thus, the southern region, representing one-tenth of the country's whole area and including one-third of the total population, has seven universities, one hundred isolated schools (institutions of higher learning), and more than half the country's total number of students; in the eastern region, there are similarly seven universities and several isolated schools and one-third of the total number of students.

It cannot be denied that the diversification and re-orientation of the higher studies is closely related to the above-mentioned economic changes. But from the start the introduction of new educational directives was the result of the influence of research institutes and of special professional schools, run both by government authorities and by private agencies.

Centralized Administration and Formal Training

In order to understand the role played by the government and by private enterprise, it is necessary to bear in mind the origins of the centralized control of higher education in Brazil and the formal nature of such education. While, in other Latin-American countries, universities were founded in the sixteenth and seventeenth centuries (Peru, Mexico, Ecuador, São Domingos), the same thing did not occur in Brazil. Strange as it may seem, the first Brazilian university was organized in 1920. Up to then there were only training schools for the professions, each one entirely isolated from the others.

---

[1] 51·93 *cruzeiros*=£1=$2·80.

During the colonial period there were some schools for the study of philosophy and theology, for the training of Catholic priests, mainly Jesuits. But the first professional schools of higher education were founded only in 1808 by D. João VI, when the Portuguese Court was transferred to Brazil (a medical school, a military academy, and some years later, a school of fine arts). Having withdrawn before Napoleon's troops, who invaded Portugal in 1807, D. João VI found it necessary to train men for court duties: civil service officials, military leaders, and diplomats. Yet no university was founded, but only a few isolated institutions, thus setting the pattern to which, for a long period of time, Brazil's system of higher education conformed. Characteristics of this pattern were the centralization of the country's educational administration and the formal nature of the studies.

Nevertheless, one should not exaggerate the possible influence of a university system. The pattern described does not seem to have influenced the evolution of Latin-American higher education greatly. The scientific outlook, which spread all over Europe after the eighteenth century, did not find conditions favourable to its development in Portugal and Spain. The culture carried to their colonies in America by the Portuguese and the Spaniards could not differ from their own. The culture both of the Portuguese and of the Spanish was based on religious dogma and authority. It revealed a preference for oral debate and comment on the *summi philosophi*. This way of thought, or philosophy of life, was the basis of the view that higher education should be a prerogative of the state and of the privileged class round which that state turned.

Soon after the proclamation of Brazil's independence, in 1822, the first schools of law were founded and the Military Academy was transformed into a Central School, on the lines of the French academies of that period, and included courses in physics and mathematics; later it became the first centre for civil engineers. In 1875, a school of mines was opened in Ouro Preto, one-time capital of the State of Minas Gerais. The graduation of pharmacists from the medical schools of Rio and Bahia also began about this time.

Teaching usually consisted of recitation from books. Satisfactory facilities were not available and the basic training of students was inadequate. A graduate was always able to express himself on general subjects, but never able to tackle the real problems of his environment. Professors were underpaid; their appointment, however, was for life, whatever the quality of their work. They became *catedráticos*, i.e. 'proprietors of a chair'. Though to-day professors are appointed on the results of a public examination, the old system of appointment for life still prevails; thus, after successfully completing the necessary examinations, there is no reason for a professor to improve his knowledge and bring it up to date.

The suppression of slavery, in 1888, and the proclamation of the Republic the following year brought few changes to the general organization of higher education. Studies continued to be regulated by national laws, with uniform curricula for the whole country. Nor was there any change in the system of 'proprietors of chairs'. Only recently has a professorship taken on the aspect of a career in the larger universities.

These general characteristics explain why the scientific development and technological training, demanded by Brazil's economic and social change, took place in institutions other than the centres of higher learning. Some of these institutions were founded by foreign technicians, like John Casper Branner, of the Imperial Geological Committee (*Comissão Geológica do Império*), in 1875; F. D. Dafert, who in 1887 was called upon to organize an agricultural institute; Emilio Goeldi, who founded the Paraense Museum in 1885; Hermann von Ihering, who organized the Paulista Museum in 1893, and others. A number of Brazilians also contributed to the scientific progress of the country: Barbosa Rodrigues, through the Botanical Gardens, after 1890; Henrique Moritze, as head of the National Observatory since 1908; Osvaldo Cruz, who introduced experimental medicine into Brazil, and founded the Manguinhos Institute, to-day known as the *Instituto Osvaldo Cruz*; Vital Brazil was founder of a therapeutic serum institute called the Butantan Institute.

For a long time, such institutions influenced higher education only indirectly. From them, only a few technicians graduated after a course of study of a type which might be regarded as the forerunner of in-service training. These graduates eventually took up civil service and teaching posts connected with their former work. A typical example was the *Instituto Osvaldo Cruz*, in which this sort of training may be found. Despite the fact that it was not a formal educational establishment, this institute trained the first public-health doctors. The Agricultural Institute of Campinas (*Instituto Agronômico de Campinas*) trained the first experts for rural work and influenced the organization of the first higher-level agricultural school, that of Piracicaba (1901), which was formerly a private agency, and is now incorporated in the University of São Paulo.

Formal Training versus *Technology*

The establishment of the first Brazilian university in 1920 brought together the three large professional schools which were supported by the Federal Government, namely, medicine, law, and engineering, without changing their structure. Eleven years later, the Federal Government approved the laws relating to the Brazilian universities (*Estatutos das Universidades Brasileiras*) and other supplementary Acts. These measures were all of great importance to higher education in the country, since they recognized the existence of state-maintained universities and those of private agencies

At that time the Rio de Janeiro University (*Universidade do Rio de Janeiro*) was expanded, and taken into it were several schools supported by the Federal Government, like those of fine arts, music, agronomy, veterinary science, pharmaceutics, and dentistry. In addition the establishment of a School of Education, Science, and Arts was outlined.

The mixed character of the university, grouping together as it did both academic and technological schools, was evident. In 1934, however, a new law separated the technological schools and consolidated them into what was called the Federal Technical University (*Universidade Técnica Federal*). This institution was short-lived. In January 1937, all schools of higher education maintained by the Central Government were again brought together under the title of the University of Brazil (*Universidade do Brasil*). The purpose of university education was then re-defined, to include the following: (1) to train personnel for professional, technical, and scientific activities; (2) to train research workers, intellectual workers, and students preparing for high and normal school teaching; and (3) to develop scientific and technological research.

This complex and somewhat contradictory legislation was a reflection of the new needs created by technological development. Brazil's universities were clearly seeking to dispose of the formalism that had prevented them from studying the real problems of the country. Previously, these had not been acknowledged as such, but had rather been included under the heading of general and abstract research. In order to develop a dual role, the University of São Paulo established a School of Sciences and Arts in 1934; its science section progressed rapidly, since it was staffed with foreign mathematicians, physicists, and chemists under contract, and even had foreign professors in some of the social sciences. The same occurred in Rio de Janeiro, though not in the Federal but rather in the City University (*Universidade do Distrito*

Federal), which was founded in 1935, and in which a School of Science was also established. In 1939, the University of Brazil took over part of this school, adding it to its own structure; thus was created the Brazilian Faculty of Philosophy, Sciences, and Arts (*Faculdade Nacional de Filosofia, Ciencias e Letras*), in place of the School of Education, Science, and Arts.[2]

As a result, the spirit of the teaching in the two universities, in a few sectors at least, began to change. Some institutes were set up and have been endowed with facilities and resources to carry out scientific research. São Paulo has a 30-megavolt Betraton, and a Van de Graaf electrico-static generator. An atomic reactor has just been installed. There is a well-equipped bio-physics institute in Rio. Several professors are working on a full-time basis at both universities, associating research with teaching. All this activity has contributed to establish the fact that knowledge is not simply to be found in books and imparted by teachers as the cultural heritage. Above all, knowledge should be considered as a *method*—a method that must be applied to the solution of whatever pressing problems arise.

This view has also been conducive to the establishment in 1951, by the Federal Government, of the Brazilian Research Council (*Conselho Nacional de Pesquisas*), the chief objective of which is " to promote the development of scientific and technological research in all fields of knowledge ". The Council's programme is carried out through the granting of scholarships, by hiring foreign teachers, and through grants to universities for the establishment of research centres, or for the development of those already existing. The Brazilian Research Council is to be credited with the establishment of a Physics and Mathematical Research Centre at the University of Recife (Pernambuco); of an Institute of Pure and Applied Mathematics in Rio de Janeiro, and of another for radioactive research in the University of Minas Gerais, in addition to small centres in various universities and isolated schools.

Technological Institutes and Special Professional Schools

The foregoing developments, which are very recent in university life, were nevertheless made possible as the result of the influence of the technological institutes and special professional schools, which previously had been able to operate and prosper only outside the system of higher education. Among the institutes, the following should be mentioned as pioneers: the previously mentioned *Instituto Agronômico de Campinas*, which was responsible for the introduction of new technological policies in Brazil's agriculture; and the *Instituto de Pesquisas Tecnológicas* (Technological Research Institute), of São Paulo, which, initially, as a foundation operated by the state's industrial *entrepreneurs* and later incorporated into the *Universidade de São Paulo*, contributed extensively towards the development of important industries.[3]

---

[2] The University of São Paulo hired the services of G. Wataghin and G. Occhialini, who started experimental research in Brazil on cosmic rays and nuclear physics and trained such Brazilian specialists as Cesar Lattes, Mário Schönberg, J. Leite Lopes, and others. Working with Gardiner, in the Radiation Laboratory, near Berkeley, California, Cesar Lattes made the discovery in 1948 of the 'artificial meson'. At the University of Brazil, J. Costa Ribeiro established and defined the laws of the 'thermo-dielectric phenomenon' in 1943.

Two special professional schools should be mentioned as outstanding examples of their kind, because they represent two stages in the process of technological transformation. First, the chemistry courses started in 1918 under the Chemistry Institute (*Instituto de Química*) by the Ministry of Agriculture, Industry, and Commerce; and the Aeronautic Technological Institute (*Instituto Tecnológico de Aeronáutica*), which began work in 1945 in the small town of São José dos Campos, as a result of the initiative of the Armed Forces. This latter is, in fact, a school of aeronautical engineering. Secondly, mention should also be made of a centre for the training of petroleum engineers, created less than three years ago by *Petroleo Brasileiro Co.* This institution offers post-graduate courses.

The organization of the Chemistry Institute courses—run entirely apart from the existing system of higher education—was the result of lessons learned from World War I regarding the importance of the chemical industry both in peace and in war. The aim of these courses when they were started was to train chemists and prepare experts in the field. Courses for the former were open to such persons as had already undertaken basic studies in engineering, agriculture, medical, or pharmaceutical schools; the other courses were very specialized and designed for professionals who wished to further research on specific topics. At first they granted no formal degrees, but two years later the term 'industrial chemist' began to figure on qualification certificates.

---

[3] The utilization of technology in agriculture was not restricted to mechanization alone. For instance: the development of new varieties of cotton of medium fibre in São Paulo by the *Instituto Agronômico de Campinas*, from 1936 to 1951, brought about an increase in production equivalent to 200 million dollars; the development of hybrid maize during the same period caused an increase in production of the order of 500 million dollars. Similar results have been obtained in the industrial field by the work of the *Instituto de Pesquisas Tecnológicas de São Paulo*. Thus, the cement industry, which can meet now domestic demand, became profitable only after research made by that institute; the same happened with regard to iron and fine steel castings. The institute has co-operated substantially towards the development of chemical industries in general and of ceramics.

The good results achieved by the experiment led the Engineering School of São Paulo (*Escola Politécnica de São Paulo*) to start a four-year course in chemical engineering—its duration was later extended to five years. But the system adopted for the Ministry of Agriculture courses prevailed until 1933, when they were incorporated into the Rio de Janeiro University. This provides a good example of how professional training, demanded by new production needs, at the same time influences production and educational policy. In addition to the immediate repercussions it exerted upon the Engineering School of São Paulo, its earlier courses also contributed to the setting up, in 1921, of chemical institutes in the Engineering Schools of Porto Alegre and Belo Horizonte, and to the establishment of the Chemistry Schools of Recife and Pará.

In a similar way the *Instituto de Pesquisas Tecnológicas*, in São Paulo (known by the initials I.P.T.), gave rise to new policies in the study of engineering. From the start it was adequately equipped for the study of the resistance of materials and was able to offer facilities to industry to test raw materials. During the period between the two world wars its influence was considerable. It provided instruction on modern technological knowledge and methods. In many other countries the policies of the large technical schools are determined by sections of industry and by certain government agencies, like the Armed Forces' scientific and technical departments. In view of the backwardness of industry in Brazil until thirty years ago, and in view of the academic form of studies even in the engineering faculties, the country's technological development could be promoted only by an organization outside the system of higher education.

Another significant fact was that, until a short time ago, textiles formed the largest industry in Brazil; however, no engineering school had taken the initiative in establishing courses or carrying out studies connected with spinning and weaving. It became necessary for the industry itself to organize a vocational school of the kind made necessary by the expansion of its services. Thus there were advanced courses in the Brazilian Industrial Apprenticeship Service (*Serviço Nacional de Aprendizagem Industrial*) which, although intended for the training of apprentices, had to expand its programme to meet this need.

Until 1944, the major purpose of the engineering schools was to prepare civil engineers in a five-year course of extensive theoretical training. In that year, only 85 of a total of 413 engineers who graduated specialized in the other fields of engineering. In 1956, 716 of the 1,050 graduates were still civil engineers. The total of graduates tripled in ten years, while the number of engineering schools throughout the country increased from twelve to twenty-four. However, in view of the growth of Brazil's heavy industries, there is still a shortage of mechanical, electrical, and metallurgical engineers.

In a study carried out in 1946, the American educationist Richard Smith compared American and Brazilian industrial developments. and reached the conclusion that Brazil's industrial production was then equivalent to that of the United States in 1890. But in the United States, even then, there were already six hundred engineers per million inhabitants, whereas in Brazil there were in 1946 only two hundred engineers per million inhabitants. "It will be necessary to graduate a greater number of engineers," he said, "and not only increase the number of schools, but provide them with greater flexibility and better organization in order to allow them to supply practical training."

In some respects, this is precisely what is being accomplished by the *Instituto Tecnológico de Aeronáutica* (I.T.A.) in the development plans of which Professor Smith co-operated. Basically, the I.T.A. aims to train specialized aircraft engineers, to meet Brazilian aeronautical requirements, and to further research in this field. It is worth recalling that in 1955 the routes flown by Brazilian airlines extended over 100 thousand kilometres and carried 10 per cent of the entire world total of passengers. But I.T.A. offers an example of the new educational methods. The duration of the course is five years, and it is divided into two training levels: a fundamental and a specialization level. There are three sectors of specialization: aircraft, organization and operation of air-transport systems, and electronics. A new sector is being organized, namely fuels and engines.

A most important feature of I.T.A. is its general educational structure, in which we observe a full-time plan for professors and students alike. Moreover, the equipment is eminently suited for individual work by students, and the curriculum has been drawn up bearing in mind the country's real requirements. The I.T.A. is associated with the Aeronautical Technical Centre (*Centro Técnico de Aeronáutica*), and actually forms a part of it. According to a comparative study carried out by Dr. Charles Stanton, Chairman of the Curriculum Committee, the study time put in by the students at the I.T.A. was comparable with that of students in the major United States schools of a similar type, for example, M.I.T. (Boston, Mass.), the California Institute of Technology, and technical studies of Purdue University.

Although not ten years have elapsed since the foundation of the I.T.A., its example has had a substantial influence on plans for reforming Brazil's engineering schools. This may be deduced from the report, published in June 1956, and drawn up by a Commission specially appointed for the purpose by the Minister of Education. It has also influenced the organization of special vocational schools established more recently, like the Centre for Post-Graduate Work and Research on Petroleum (*Centro de Aperfeiçoamento e Pesquisas de Petróleo*), opened by the Brazilian Petroleum Company, or *Petrobras*. This company's programme is being actively pursued in so far as the prospection, production, and refining of petroleum throughout the country is concerned. *Petrobras* which, incidentally, holds a monopoly in this field, organized a series of specialization courses for post-graduate engineers, dealing principally with geology, production, refinery process, and chemistry of petroleum.

Simultaneously, the company has offered to collaborate with certain Brazilian universities to provide joint courses on condition (1) that the universities agree to adopt *Petrobras*' selection standards for applicants interested in such courses, (2) that students study on a full-time basis, and (3) that the universities agree to accept on their staff a number of contracted experts, of either Brazilian or other nationality. Since their inception three years ago, these courses offered by the Centre have given most satisfactory results. On the other hand, certain problems of mutual adjustment have arisen in the programme of joint courses. These are gradually being smoothed over, to the advantage of all the parties concerned.

The precise influence of the specialized schools and courses now required by industrial development on the general system of technological study is seen when the major features of Brazil's current higher learning are examined. However, the process is not peculiar to technological studies, but is also noticeable in other branches of professional training. Thus, there are courses provided by the Getúlio Vargas Foundation (*Fundação Getúlio Vargas*) on public and business administration; there are others in social welfare training, initially given by the private welfare organizations. There are, also, courses at São Paulo Free School of Sociology and Politics (*Escola Livre de Sociologia e Política de São Paulo*). The term 'free' was used in the sense that the school was initially unattached to any official educational body, but it is now incorporated into the University of São Paulo, as a 'complementary institution'.

Finally, reference should be made to the courses given by the Institute for Vocational Selection and Guidance (*Instituto de Orientação e Selecão Profissional*) in Rio de Janeiro, which trains psychologists. The standards required of these have been established by Federal law, whilst, as far as specialization in applied psychology is concerned, a draft Bill was recently submitted to Congress by the Brazilian Minister of Education to regulate the matter on a basis recommended by the National Council for Education (*Conselho Nacional de Educação*).

The main reason why it is necessary to establish these standards by law is because Brazil's Constitution stipulates that the Federal Government alone is empowered to decide what the qualifications needed by those who are to work in the liberal and techno-scientific professions throughout the country should be. However, it should be observed that higher education, hitherto circumscribed by prevailing legislation, is now gradually moving away from its former position of 'splendid isolation'.

Higher Education and Economic Planning

Bearing in mind the pressing educational requirements of the period and taking into account the economic development plans accepted by the Federal Government, the Executive appointed a Commission in 1951 to plan a National Campaign for Post-Graduate Training (*Campanha Nacional de Aperfeiçoamento de Pessoal em Nivel Superior*), known as CAPES. The campaign had two principal objectives: (1) "To ensure the availability of specialized personnel in numbers and with qualifications sufficient to meet the needs of public and private enterprise directed to the promotion of Brazil's economic and social development", and (2) "to offer the better-qualified persons, with little or no personal means, access to all post-graduate training facilities."

CAPES has periodically surveyed the country's needs as regards trained personnel and publishes the results of such studies in a monthly bulletin. It has also provided the means by which deficiencies in higher-level technical instruction could be covered and has promoted the better utilization of the opportunities for training and post-graduate work offered by the United Nations and Point Four Technical Assistance programmes and those of the former's specialized agencies. Similarly, CAPES has contributed to the organization of post-graduate studies, as yet inadequately developed in Brazil, and has sought to co-ordinate regional and national programmes in this connexion. Lastly, it has broadened the scholarship programme, so providing considerable benefits for the training of teachers, professors, and experts in those sectors of education where the demand for them is greatest.

Broadly speaking, CAPES' efforts have produced good results. However, the obstacles in the way of formulating and modernizing a nation-wide educational programme are by no means small. Among these difficulties, figure those created by the increased production of certain branches of industry, like the country's growing automobile and chemical works, which demand fairly skilled labour.

For this same reason, the Federal Government deemed it advisable, in May of 1957, to establish another agency, under the auspices of the Brazilian Development Council (*Conselho de Desenvolvimento*). This body is under the Presidency of the Republic and undertakes economic planning studies in general. The agency supervised by the Development Council is the Commission for Education and Culture (*Commissão de Educação e Cultura*); on this Commission various ministries are represented, as are producer groups, the Brazilian Economic Development Bank (*Banco Nacional do Desenvolvimento Econômico*), and CAPES.

One of the most significant and important documents prepared by the new Commission is entitled " Education for Development " (No. 20) (*Educação para o desenvolvimento*), to which a most interesting appendix was added, with the title " Analysis of the Financial Resources Applied by the Public Authorities to Education " (*Análise do esfôrço financeiro do poder público com a educação*). Some of the conclusions revealed by these documents are of first-rate importance, and confirm the worst fears expressed by a number of educationists some years ago regarding the sacrifices which would be imposed on the development of elementary education by the greater interest shown in granting facilities to extend higher education. There can be no doubt that the outlay made by the public authorities on elementary education has declined substantially (from 60 per cent of the total expenditure on education in 1948 to 43 per cent of it in 1956). Little change took place in the allocations to the intermediary levels (which fluctuated between 25 per cent and 30 per cent of the total during the period mentioned). At the same time, there was a noticeable improvement in the volume of public money directed to higher education, in relation to the total spent on education as a whole, that is from 12 per cent of that total in 1948 to 26 per cent thereof in 1956 (in terms of adjusted currency).

Nor can it be denied that Brazil's primary educational system is very deficient, since the illiteracy statistics collected for the 1950 Census showed that 50 per cent of persons of 10 years of age or over were illiterate. Hence one can easily realize how grave have been the repercussions over the past few years of the Federal Government's educational policy. This is particularly the case in view of the fact that it has been directed towards the take-over of private institutions, which previously operated on their own funds, rather than at the establishment of new seats of higher education.

The Education Commission of the Brazilian Development Council took this fact into account in the programme it has formulated for the next four years, and which is now awaiting adoption by the legislature. The programme recommends a substantial increase in the allocations for elementary and secondary education. It stated that the outstanding deficiencies of the present system of higher education were: (1) the inadequacy of the study schedule, for both staff and students; (2) the inadequacy of technological training; (3) the fact that the actual system does not take into account production requirements;

(4) the dearth of post-graduate courses; and (5) the faulty organization of the teaching profession. In order to remove these shortcomings, the Commission recommended that facilities in the existing engineering schools should be increased to allow for an additional three thousand students by 1958, of seven thousand five hundred by 1961. It also suggested that the professors should be engaged on a full-time basis and that the qualifications and other requirements asked of students should be raised. A similar proposal was made in connexion with the organization of post-graduate courses in the different branches of professional training, and another proposal was made regarding the re-structuring of the teaching profession.

The observations and recommendations contained in this report lead to the conclusion that Brazil's system of higher education at present should be directed principally to technological courses, or, in other words, that it should have as its chief concern the solution of the problems arising from economic developments. Its motto might well be *Technology* versus *formal training*.

Nevertheless, Brazil, like any other country, cannot afford to develop its higher education at the cost of expanding the primary and intermediary levels. This expansion is necessary to meet the demands of the country's population, unless such education is to remain solely at the disposal of a privileged group. Close observation over the past twenty years of events connected with the Brazilian educational system does indeed point to these sharp contrasts—one might even call them conflicting tendencies—which only certain factors of the country's cultural evolution, as described above, make understandable.

M. B. LOURENÇO-FILHO.

BIBLIOGRAPHY

Fernando de Azevedo (editor), *As Ciências no Brasil* (Ed. Melhoramentos, São Paulo, 1955).

A. Almeida-Junior, *Problemas do Ensino Superior* (Edit. Nacional, São Paulo, 1956).

M. B. Lourenço-Filho, " Guidance in a Rapidly Industrializing Latin-American State ", in *The Year Book of Education*, 1955 (Evans Bros., London, and World Book Co., Yonkers-on-Hudson), Section I, Chap. IX.

E. Oliveira-Junior, *Doze Ensaios sôbre Educação e Technologia* (Capes, Ministério da Educação, Rio de Janeiro, 1956).

Conselho do Desenvolvimento, *Educação para o Desenvolvimento* (Relatório final da Comissão de Educação e Cultura do Conselho do Desenvolvimento (Documento No. 20), Rio de Janeiro, 1957). (*Mimeo.*)

Instituto de Pésquisas Técnológicas de São Paulo, in *Meio Século de Tecnologia* (Boletim No. 34, junho de 1949, São Paulo).

Joaquim Faria Góes Filho, " Technological Development and Education in Brazil ", in *The Year Book of Education*, 1954 (Evans Bros., London, and World Book Co., Yonkers-on-Hudson), Section IV, Chap. III.

CHAPTER FOUR

The Emergence of Colleges of Advanced Technology in Britain

TECHNICAL education is education and training related to employment, at all levels from semi-skilled jobs and routine work, to scientific, technological and other professional occupations and to managerial and executive posts of high responsibility. It may be undertaken before employment or concurrently with it, in relation to restricted tasks, or it may be aimed at future advancement. Because of the varying development of industry and technical education since the early days of the industrial revolution in the eighteenth century, there is a great diversity of institutions concerned with technical education in Great Britain. The secondary schools, many institutions of further education including the technical colleges, the universities, adult education residential colleges, works' schools in industry, private institutions, staff colleges, professional institutions—all are in greater or lesser degree concerned with technical education for the great variety of occupations inherent in a modern technological society.

Diversity and flexibility have been outstanding characteristics of the system of further education. For example, courses for craftsmen, technicians and technologists have been integral parts of many institutions, and this has undoubtedly favoured the upward transfer of able students. Research and post-graduate courses may also be conducted within the same technical institutions, and courses may be full-time, part-time day or be largely held in the evenings. It has thus been possible for able students to become scientists and technologists either through full-time courses in the universities or in the major technical colleges or, concurrently with employment in industry, through part-time day or evening courses in the technical colleges. The technical college courses have mainly led either to the qualifications granted by the professional institutions or, in fewer colleges, to the external degrees of London University. In seven London polytechnics only, some courses are recognized for internal degrees of London University, as with constituent colleges of the university, and some other technical colleges are affiliated in varying ways with the neighbouring university.

So great a diversity has led to a confusion of function, or rather, to the attempt to carry out mutually conflicting tasks. For a long time there has thus been considerable overlap in range of work and function as between different colleges, even in the same region and locality. Typical of this duality of function in another direction, we may note that recently three out of four scientists were produced by the universities, and one from the technical colleges: for technologists the proportions were reversed, three being produced by the technical colleges. The confusion and overlap has become the more apparent as rapidly growing demands by industry for technologists, technicians and craftsmen have been estimated and more widely appreciated. In working out the 1944 Education Act at the level of further education, the function of the technical colleges has therefore been the central issue of a prolonged controversy. In this there have been two main aspects, one internal, the other external to them. The internal controversy has been over the distribution of the different levels of work, from elementary crafts to technological training and research, among the technical colleges themselves. The external controversy has been about the relative part to be played by the universities and the major technical colleges in the education and training of technologists. The second issue is our main concern here, but the first requires some prior detailed consideration in order to clarify certain issues, and to indicate the particular kind of technical institution now most directly concerned.

Differentiation of Function

The first post-war major contribution towards differentiating the functions of technical colleges was the Report of a Committee, with Lord Eustace Percy as Chairman, on Higher Technological Education, published in 1945. The Committee recommended that a strictly limited number of technical colleges, designated as colleges of technology, should be selected from within the existing technical colleges, in which there should be developed technological courses of a standard comparable with that of university degree courses. The Committee laid down desiderata for these colleges to be developed into responsible academic institutions, performing a national function, and these included removal of elementary work, provision of appropriate staff and working conditions, academic responsibility and a high degree of autonomy, highly responsible governing bodies with effective representation of industry, and a higher rate of grant in respect of their national as distinct from their local function. The courses should preferably include planned industrial experience as in sandwich courses. Any new qualifications awarded by the colleges must be guaranteed as conforming with a national standard, but this should not be through yet another external examining body. However, the Committee could not reach agreement as to the title of technological qualifications to correspond either with the university first degree or for the higher degree gained as a result of post-graduate study or research. All undergraduate students should be introduced to management studies, and these should be fostered at post-graduate level after significant industrial experience. The interchange of students should be facilitated between universities and technical colleges, and able students should be transferred from part-time to full-time courses. Teachers should return to industry for substantial periods and specialist staff should be released from industry to teach in the colleges. A system of regional advisory councils should be established to encourage the development of technical education, and to ensure that no overlapping or gaps exist in technical college courses in meeting the needs of industry in the various areas and regions. The needs of small but very important and widely dispersed industries should be met by establishing a few national schools of technology within certain technical colleges.

The recommendations of the *Percy Committee Report* have been given in full because the most important continued to be live issues throughout the next decade. The recommendations concerning regional organization, governing bodies, relationships with industry, national colleges (schools of technology), the higher rate of grant, sandwich courses, management studies, and several of those concerning staffing conditions were incorporated quite early in official policy. Nevertheless eleven years were to elapse before the full implications of the *Percy Committee Report* as to the differing functions of colleges were accepted, not, indeed, until the publication of the Government White Paper on Technical Education in February 1956. In this the planning of a four-tier structure was envisaged, in which the colleges have differing functions in respect of the nature of the courses, their academic awards and autonomy, the catchment area from which their students come, and their relationships with industry.

Types of Technical Institutions

To simplify the description only those technical institutions (excluding art but not commerce) which have a significant volume of day-time courses (full-time and/or part-time) are dealt with here, in what must necessarily be only a broad description of their respective spheres of work.

Local Colleges of Further Education, about two hundred and fifty in number, are the foundation of the system of technical education. They normally undertake work for the Ordinary National Certificate (O.N.C.) and the City and Guilds of London Institute examinations for craftsmen and technicians, and elementary examinations of the Royal Society of Arts (R.S.A.); general education for the General Certificate of Education

(G.C.E.), Ordinary level, and also for Advanced level for students wishing to qualify for entrance to the universities and to professional courses of similar standard in the technical colleges. Generally the local colleges are mostly concerned with part-time courses, and they may well have some adult education courses and activities.

Area Colleges have a wider catchment of students, with some Higher National Certificate (H.N.C.) as well as O.N.C. courses, and work for the City and Guilds of London Institute Final examinations for craftsmen and technicians at the end of four or five year part-time courses. There may be courses for R.S.A. and professional intermediate examinations, with other more general educational activities. The number of area colleges is changing but is likely to be about sixty. They will have a substantial volume of part-time day courses, and will make an indispensable contribution to the training of craftsmen and technicians, of which the advanced technicians will come mainly through the H.N.C. courses.

Regional Colleges gather students from a wide region, and have a substantial volume of H.N.C. courses, and of Higher National Diploma sandwich courses (mainly of four years' duration, each year comprising six months in college and six in industry). Many students will subequently pass or gain exemptions from professional examinations. Courses for London University Degrees and the Diploma in Technology may be held, with some post-graduate courses and research. There are twenty-two regional colleges, and the number may rise to about thirty. Their volume of full-time and part-time work may be fairly evenly balanced, and they will produce high-grade technicians and craftsmen, and make a contribution to the training of technologists.

Colleges of Advanced Technology. These form the apex of the new structure of technical education. Their work is to be national as well as regional in character, and will comprise undergraduate and postgraduate courses and research, as in the universities, though the content and the relationships with industry will differ in significant ways, notably in providing courses having integrated industrial training. Special conditions for their recognition were indicated in the White Paper, and amplified in the ensuing *Ministry of Education Circular 305* (July 1956). These included the shedding of all elementary courses up to and including O.N.C. and the G.C.E. (Advanced level); the provision of new buildings for teaching and research, laboratories, workshops, libraries, and other amenities for liberal studies and for social activities. Halls of residence must also be provided. In short, most of the recommendations of the *Percy Committee Report*, including the most important ones concerning governing bodies and the staffing of colleges, are accepted.

The following colleges have now been designated as colleges of advanced technology: Birmingham College of Technology, Bradford Institute of Technology (formerly Bradford Technical College), the Welsh College of Advanced Technology, Cardiff (formerly the Cardiff College of Technology and Commerce), Loughborough College of Technology; in London, Battersea College of Technology (formerly Battersea Polytechnic), Chelsea College of Science and Technology (formerly Chelsea Polytechnic), and Northampton College of Advanced Technology (formerly Northampton Polytechnic); the Royal Technical College, Salford.

Patterns of Administration

Under the 1944 Act the Minister of Education has laid upon him the duty "to promote the education of the people of England and Wales and the progressive development of institutions devoted to that purpose, and to secure the effective execution by local authorities, under his control and direction, of the national policy for providing a varied and comprehensive educational service in every area". As with other institutions, the progressive development of technical colleges is inescapably determined by appropriate means of governance and finance, and especially when these institutions are in a period of rapid change and steady growth. Not that these problems are new, but they are much more specialized and urgent.

Two main issues were clearly stated by the Minister in an official *Circular* (98) in April 1946: First, that all major colleges should have strong governing bodies, particularly in having " adequate representation of important industrial and commercial interests and the universities, as well as of the local education authorities concerned ". Secondly, " governing bodies so constituted should be given all reasonable freedom of action in directing the affairs of the college, including the power to incur expenditure within the heads of estimates submitted to and approved by the providing authority . . . the college should enjoy such freedom as will enable the governing body to develop its work in such directions as prove desirable and to attract first-class teachers on the staff ". With these admirable recommendations in mind, we may summarize the differing modes of governance and finance as follows:

Group I: Direct Grant Institutions, financed direct by the state, with fully constituted governing bodies appointed or approved by the Minister; these include Loughborough College of Technology, the central institutions of Scotland, the eight national colleges already mentioned (which have varying degrees of financial support by industry).

Group II: Aided Institutions, which have small sources of income of their own, but are sustained mainly by financial aid from the local authority. They all have governing bodies with constitutions and powers reflecting their history, e.g. the polytechnics aided by the London County Council.

The institutions in these two groups comply substantially with the recommendations of *Circular 98*, but this is not true of the next group.

Group III: Institutions maintained by Local Education Authorities, which are of two main types:

(A.1).—Directly maintained by a local education authority and governed through properly constituted governing bodies with full powers in accordance with *Circular 98*.

(A.2).—Directly maintained by one local education authority and administered through a sub- or a sub-sub-committee of its education committee. In these cases, which are really a much less favoured section of (A.1), the college work is but part of the general concern of the sub-committee and may suffer more or less accordingly.

(B).—Directly maintained by two or more local education authorities and governed by a representative joint education committee. This system is introduced when the catchment area for students substantially involves two or more education authorities. Experience shows that this mode of governance favours, and it may even entail, the full implementation of the conditions of governance set out in *Circular 98*.

It is part of the complexity of technical education that there is no simple relationship between the four-tier system of organization of technical institutions and these three groups of governance. For example, colleges of advanced technology are to be found in Groups I, II, and Group III (A.1) and B. Regional colleges are found in all groups except Group I. As would be expected, area and local colleges are found only in Group III (A.1) and (A.2), but not in III (B). It is the ratio of these colleges coming under the headings (A.1) and (A.2) that is important at this level.

The method of financing all these institutions in Groups II and III is due to be changed in 1960 as a result of the Local Government Finance Act, which was passed in 1958. The present method is that, after deducting all sources of other income, the net annual cost of the technical college to the local authority attracts a 60 per cent grant from the state for all normal courses and activities. Certain advanced courses under special conditions attract a 75 per cent grant, and these are to be found in regional colleges, and form the bulk of the work of the colleges of advanced technology. From 1960 onwards the cost of normal courses will be met out of a block grant made to local education authorities each quinquennium. The whole cost of advanced courses, which have the Ordinary National Certificate or the General Certificate of Education with at least two Advanced-level subjects as entry qualifications, will be recouped from a central pool according to a prescribed formula, and will not be met direct from the rates of the local authorities concerned. This will apply to a significant part of the work of the regional colleges, and to the whole of the work of the colleges of advanced technology. These changes in financing the work of local education authorities and their institutions have been the cause of a prolonged and very vigorous controversy, and the future is awaited with the keenest interest.

In contrast with the large number and complexity of technical institutions, and their varying modes of finance and governance, the arrangements for the twenty-two universities and one university college are relatively simple and homogeneous. They are all self-governing institutions, with full academic autonomy to grant their own degrees for under-graduate courses, and also higher degrees for post-graduate study and research. From being originally financed wholly or largely from private resources, they have become increasingly dependent on state aid dispensed to them through the University Grants Committee. This is a committee of H.M. Treasury, composed mainly of representatives of the universities, but the moneys distributed to the universities are not thereafter subject to government audit and control. In 1956–7 parliamentary grants to the universities amounted to about £38 million, of which non-recurrent grants were about £9 million. The recurrent grants of £29 million amounted to 69·8 per cent of their total annual budget. Despite this high proportion of state aid, the universities are nevertheless free from direct government control. At the beginning of the session 1957/8 there were 94,600 students enrolled in the universities, of whom 21,333 (22·6 per cent) were in science courses, and 13,730 (14·5 per cent) attending courses in applied science, other than medicine, agriculture and forestry, and veterinary science.

The universities had been doubled in size as a result of the *Barlow Committee Report on Scientific Manpower*, and in 1953 the government announced a massive expansion of the Imperial College of Science and Technology, together with the development of major technological departments within particular universities outside London. Further developments were announced for the quinquennium 1957–62. The government fully accepted the recommendations of the Advisory Council on Scientific Policy in 1956, that the existing annual output of about 10,000 professional scientists and engineers should be increased to at least 20,000 by the late 1960's. In the early post-war period, when the task was underestimated, the expansion of higher technological education was considered to be primarily a matter for the universities, and especially at post-graduate level. Now, after much vacillation in government policy, the Government White Paper makes it quite clear that both the universities and the technical colleges (more especially the colleges of advanced technology) will contribute about equally to the expansion. This means a total increase of the present university population from about 95,000 to over 120,000 by the mid-1960's, while the number of students in full-time and sandwich technological courses in the technical colleges should then have increased by nearly 23,000.

Problems of Expansion

In an authoritative article on the "Growth of Higher Education" (*Universities Quarterly*, May 1958), Sir Solly Zuckerman shows that the programme facing the universities and the technical colleges (not forgetting the schools which must supply the students) will undoubtedly be a tight one. He concludes that: "No problem which they may have to face is going to prove insuperable, provided they are liberally encouraged in their efforts to obtain staff and put up new buildings." Clearly these are of cardinal importance, but they by no means give the whole picture. Some further analysis of these and other factors likely to affect expansion is desirable, and in two main aspects: those which are peculiar to the initial stage of development of the colleges of advanced technology as distinct from the established universities, and secondly, their relationships with the universities.

The most prolonged controversy in post-war policy in technical education has been whether it is better to recognize, for expansion and new academic awards, certain types of courses in a generality of colleges or to restrict recognition to a strictly limited number of colleges *per se*. The first is based on the idea of upgrading and improving existing courses of the Higher National Diploma or Higher National Certificate type as sandwich courses, with ampler means of study but with related industrial training. A college could thus have an isolated course—for example, in electrical engineering. It is argued that by such widespread recognition, students would be given opportunities in many areas, without separation from the industry in which they work, and the support of which is essential to the maintenance of high standards of technological training. The second policy, put forward in the *Percy Committee Report*, stems from a consideration of certain academic factors; for example, for a course in electrical engineering to attain the necessary standards it should have 'service-classes' in mathematics, mechanical engineering, and so on, from departments of equal standing. Each of these in turn would have their own equivalent courses: in short, for the proper fulfilment and validation of each, the recognition of the college as a whole is inescapable. Furthermore, present or future resources in staffing, building and amenities (such as halls of residence and athletic facilities) will not be capable of a wide distribution, and the conditions of a 'university-quality' education will be lacking. Even the attempt to distribute them widely will hamper or permanently deprive the selected colleges of the essential conditions for their expansion.

Oddly enough, these two apparently mutually conflicting policies have resulted in almost simultaneous acts of governmental policy. That of the recognition of courses led to the establishment by the Minister of Education towards the end of 1955 of the National Council for Technological Awards as an independent body, with Lord Hives as Chairman. In 1956 the Council issued a memorandum on the recognition of courses leading to the Diploma in Technology, which would be "equivalent in standard to Honours Degree courses of a British university". As at February 1958, the Council had recognized forty-five courses in thirteen colleges and 1,394 students were enrolled in them in the 1957–8 session. The thirteen colleges included five colleges of advanced technology (thirty courses), seven regional colleges (thirteen courses), and one area college (two courses). Such an analysis provokes the question: in how many colleges and of what variety can true 'university-quality' conditions be sustained? But in so far as they may be 'liberally encouraged in their efforts', the colleges of advanced technology will perhaps not have reason to fear that Gresham's Law will apply. These colleges, at the apex of the emergent structure of technical education, announced in 1956 as already described, are in fact the result of the other policy of recognizing a strictly limited number of colleges.

In this context it must be emphasized that the National Council for Technological Awards is not an examining body, and that all the arrangements after the approval of a course are designed to accord the maximum academic responsibility and freedom to the college. For each course one or more external examiners are approved by the Council and appointed by the college. In contrast with the assessors for National Certificate and Diploma Schemes, who are anonymous and remote, the external examiners co-operate with the college internal examiners in the conduct and moderation of the examinations, visit the college, see the students and their special project work, and course work if need be, and generally act as external examiners in accordance with accepted university practice. Industrial training is an integral part of all courses for the Diploma in Technology, and the college is responsible for ensuring and certifying that this is satisfactory. Only when a student has passed the college examinations and satisfactorily completed his industrial training is he eligible for the conferment of the diploma by the Council, and its presentation by the college.

Academic Standards

The first students have recently passed through a four-year (sandwich) course in electrical engineering for the Dip.Tech.(Eng.), and experience happily shows that the scheme accords far more academic responsibility than the national certificate system, and is greatly to be welcomed in consequence. Satisfactory though this state of affairs is so far, it must nevertheless fail to satisfy the colleges of advanced technology in their rightful ambitions for ultimate academic autonomy: no group of scholars could reasonably be content with less, without, that is, the hall mark of a university type of institution. Of course, it is no less reasonable to require that the hall mark should be earned, and be seen to be earned. It is to be hoped, therefore, that their relationship to the National Council for Technological Awards should cover a transitional period as a preliminary to their own awards, in a manner comparable with the relationships obtaining between the University of North Staffordshire and its sponsoring universities. Indeed, why should these colleges, devoted as they will be to work of 'university-quality' in undergraduate and post-graduate courses, and in research, be permanently at a disadvantage in respect of their own academic awards as compared with the institutions which have recently achieved full university rank, to put the case no higher? All this is equally crucial in relation to the whole question of post-graduate qualifications now under consideration by the National Council for Technological Awards. Gratifying though the present advance is, it is nevertheless very regrettable that government policy gives neither promise nor hint of such ultimate academic autonomy to the selected colleges, for this will undoubtedly handicap and probably prevent their full development. It is becoming fashionable to argue that these are a new type of institution, and that " they should not slavishly ape the universities "; such contentions are made in abysmal ignorance of the true responsibilities of a university type of institution, or are calculated to preserve a privilege in a manner not likely to be understood in many countries abroad, where there is no such discrimination against technological institutions. It would be deplorable if the possibility of such full academic responsibility were withheld as the result of a Benthamite policy on the part of the government; that is, the greatest pacification of the greatest number of local education authorities and their colleges.

Finance, Government, and Staffing

Aligned with academic autonomy, though not necessarily closely correlated with it, are the questions of finance and governance of the colleges of advanced technology. In the White Paper on Technical

Education the government did not accept the contention that a college of advanced technology cannot be successfully administered within the framework of local government; even so, certain academic and administrative conditions were indicated to be essential for the colleges. It is too early to express any firm opinion on this matter, except to say that failure is by no means so certain as some in university circles would assert. Progress has already been made in improving the constitution and powers of governing bodies, and it is the government's contention that the new grant system of the 1958 Finance Act will favour the colleges of advanced technology. On the academic side, as already indicated, the omens are uncertain at the national level; within the colleges themselves the problem of greatest urgency is that of staffing, which is, as usual, a matter of salaries and conditions of service. Salaries are a vital factor in the recruitment of first-class people from industry, from which most of the staff should come. But salaries have leap-frogged in such a way as still to leave the advanced colleges well behind both industry and the universities, especially at the upper levels of professor, reader, and senior lecturer. Scales of salaries in the advanced colleges are recommended to the Minister by the Burnham Committee, along with those for all the other colleges. Though the last *Report* did make a separate section for the advanced colleges, the differences from the technical colleges were quite inadequate and the salaries were not commensurate with those in the universities. Perhaps matters will be rectified in the new *Burnham Report* now being prepared, but this is unlikely in view of the fact that the advanced colleges have no direct representation or part in Burnham negotiations.

The development of the colleges of advanced technology in comparison with established universities will be primarily dependent on the quality of the staff they can attract, but this is not solely, nor even primarily, a matter of salaries. Good working conditions, limited hours of class teaching, and ample opportunities and facilities for research are vital: progress is definitely being made here, and the problem is rather to make this progress more widely known. While staff is the prime cause of university status, status itself attracts staff and the process is auto-catalytic. In all this the titular aspect is not unimportant: as the 1956 *Burnham Report* introduced the post of Reader for the new colleges of advanced technology, so now it should proceed to the designation of professorial posts. That there should appear to be any serious difficulty or apprehension over this for advanced colleges is a matter for incredulity for many foreign visitors to Great Britain. There is undoubted resistance in some quarters and, as with the question of academic autonomy or the wish to regard the Diploma in Technology as of sub- (or at most a pass) degree standard (such as are improved Higher

National Diplomas), there may be a desire to see advanced colleges emerge as no more than second-class–first-class institutions.

This desire to prevent their full emergence may stem unconsciously, perhaps, but nevertheless powerfully from two main directions. First it may come from the regional and other colleges with Diploma in Technology courses, who would tend to see backward implications for their own courses in such a separation. Until now, the National Council for Technological Awards is in no way representative of the advanced colleges, an anomaly which is not likely to be removed in the foreseeable future. Inherently, and almost inevitably, this will make the Council unfavourably disposed to any transitional arrangements leading to full academic status in the colleges.

When the *Barlow Committee Report* was accepted, and the universities were doubled in four years as against the planned ten years, it was on the understanding that the inner balance between faculties should not be radically altered. This was to preserve the traditional pattern of the universities, and the number of students in arts courses was also doubled. Present plans however envisage a preponderant increase of 60 per cent in the number of students in science and technology courses. At both of these significant stages of development apprehension has been expressed at the undue growth of these courses within the universities, presumably because of some anticipated adverse effects in the character of the universities as a whole (in which there is a wealth of implication we cannot follow here). Furthermore, the fear has been repeatedly expressed that the advanced colleges will fish the same pool of natural ability (in the population) as do the universities. For this reason, it is argued that the advanced colleges should confine themselves to the next and larger pool of lower ability and perhaps become first-class–second-class institutions, the lower level of which should be denoted by the Diploma in Technology. Such are the fears and wishes, born of the days of scarcity, projected into the role of these new institutions required to complement the work of the universities in a technological age. They ignore the increased size of the pool of good natural ability which now exists in the rapidly rising population of the post-war 'bulge'; and further, that it is vitally necessary to make the best of this ability if we are to meet the greatly increased demands of industry and the professions for trained, nay more, of educated scientists and technologists.

Related to all this is the fear that the advanced colleges will drain off essential finance and other resources, perhaps even staffing, from the universities. Not only may this limit their progress, but the fear is that the internal balance within the university may be disturbed still further if, in a stringent period, money is devoted preferentially to expanding the sciences and technology to their 60 per cent increase and other faculties are held back. In regard to the foregoing, clearly the policy should not be to restrict the advanced colleges but to provide the means for completing the exacting programme which faces *both* the universities and advanced colleges. Sir Solly Zuckerman asserts that "the goal towards which they are all striving is a realistic one": that being so, we should not allow such fears and apprehensions to colour official policy but, more positively and more creatively, ensure that both types of institutions should—it merits repeated quotation—"be liberally encouraged in their efforts to obtain staff and put up buildings". In his Presidential Address to the British Association in 1958, Sir Alexander Fleck was of the opinion that too small a proportion of the national income was devoted to education, and advocated strongly that it should be increased from about £740 million to about £1,200 million a year, a scale of thinking which should encourage alike those responsible for the universities, the colleges of technology and, again, let us not forget the schools who must supply the students.

P. F. R. VENABLES.

CHAPTER FIVE

American Engineering Education : An Analysis and Appraisal

THE first American school to teach engineering was the U.S. Military Academy at West Point, established in 1802 as the headquarters of the Engineering Corps of the Army. It remained such until shortly before the Civil War, when it became a general army school, although even to-day its programme necessarily emphasizes military engineering. But West Point reached a low ebb during the War of 1812, and its acting superintendent, Captain Alden Partridge, was relieved in 1817 and founded in 1819 'The American Literary, Military and Scientific Academy' which became Norwich University at Northfield, Vermont. This academy, combining engineering education and military training, was, apparently, the first civilian American engineering school. It was followed in 1823 by the establishment of Renssaelar Polytechnic Institute, " to instruct the sons and daughters of farmers and mechanics . . . in the application of science to the common purposes of life ". The great growth in numbers of schools, however, came after the Civil War with the opening of the west, the tremendous expansion of the country and of American industry and business. There can be little doubt that the majority of these schools were founded primarily to train those who would to-day be referred to as technicians rather than engineers. The Morrill Act of 1861, for example, established the so-called land-grant 'colleges of agriculture and the mechanic arts', and these were, in the beginning, distinctly vocational in character.

At the same time 'scientific schools' had been set up within several of the older arts colleges, including the Lawrence Scientific School at Harvard, the Sheffield at Yale, and the School of Mines at Columbia. Although these were grafted on to a liberal arts environment they were also most strictly scientific and technical in their offerings and requirements. Compared with European schools of the period it is also true that their teaching was of a far more practical type, with more emphasis on the acquisition of specific technical skills in contrast to the exacting mathematical and similar 'theoretical' requirements of foreign training.

This was in accordance with American needs. Older American engineers who had come up the hard way through apprenticeship and experience regarded 'scientific' education as impractical. Economic and industrial needs emphasized speed and production rather than what were regarded as the excessive refinements in design that characterized European practice. Materials were plentiful and relatively inexpensive, but skilled labour in a new country scarce and costly. Any educational programme in engineering necessarily has to compromise in terms of demand, and American engineering schools remained quite narrowly technical and semi-scientific in character. Those connected with universities or liberal arts colleges thus occupied a rather anomalous position in these Homes of the Classical Tradition.

This situation was clearly summarized in 1905 by President Butler of Columbia, who saw in the popularity of such narrow professional education a menace to the full development of American university standards and ideals. "The danger consists," he pointed out, "in allowing the claim that closely specialized work in a purely technical or professional branch, entered upon without any broad preparatory training whatever, is to be regarded as legitimate university work and entitled to university recognition and rewards." Dr. Butler had, of course, not only engineering but law and medicine in mind, for the requirement of a liberal preparation to professional study in these areas had not then been made general and, in fact, admission requirements to such schools were generally far less exacting than those demanded by many engineering institutions.

The idea of requiring studies in the liberal arts as a prerequisite to, or in combination with, engineering education was, however, not new. Major Thayer, who replaced Partridge and is generally known as the Father of West Point, had later founded the Thayer School at Dartmouth on this plan in 1875. Columbia followed in 1914 but, for many years, the longer programme required plus a lack of any professional demand for this broader education, resulted in greatly reduced enrolment at both these schools.

Liberalizing Engineer Education

In fact, this lack of support was in part also due to the narrowly classical interests of the so-called 'liberal' arts colleges. It was difficult to understand how future engineers would benefit and be broadened in viewpoint through narrowly classical language and other studies which had little relationship to the institutions and conditions under which their professional activities would be carried out. With World War I this situation began to be corrected. The war turned attention to contrasting political and social ideologies: to a self-appraisal. Exacting arts college requirements in ancient languages were abandoned and the rise and evolution of modern social, economic, and political institutions received increasing interest and attention. In the period between the two world wars the introduction of a so-called 'social-humanistic stem' in engineering education thus became generally accepted as desirable. The American Society for Engineering Education gave this plan its official stamp of approval in 1944 in its report on "Engineering Education after the War".

One of the early arguments for this 'liberalization' of engineering education was that the engineer had been primarily responsible for the creation of the changing social, economic, and political conditions of modern Western life and should, therefore, take a leading position in solving the perplexing problems to which these changes gave rise. Unfortunately, Western man cannot thus simply unload these difficulties of modern life on the engineer. We are in the grip of an evolutionary force in human affairs that leads we cannot tell where, but from which there is no escape. We have embarked on a new venture in the search for and application of unfolding technical and scientific knowledge in human affairs from which there can be no turning back. Modern life would be impossible without the products of modern engineering and science, and on their continued development our faith in and hopes for the future largely depend. That engineering alone can solve the problems we face in shaping our lives and living as is best to take advantage of and to encourage the continued evolution of engineering and science is sheer nonsense. This is the basic problem of Western civilization. Our difficulties with Russia will, in the end, not be resolved on idealistic grounds but on whether their way of life or ours offers the more favourable atmosphere and environment for continued engineering, scientific, and industrial leadership and progress.

In this struggle, not only for technological and industrial supremacy but for the survival of our Western way of life, the relationships of engineering and natural science, notably physics and chemistry, will play a major role. It is probably safe to say that the proper resolution of this relationship is a major problem American engineering schools face to-day.

Purposeful Research

World War I had made clear in the States our dependence on imports from Germany for many organic chemicals, from the intermediates essential to the manufacture of modern explosives to dyes and drugs, and had thus emphasized the role of research especially in the chemical field. The spread of the research movement and increased educational emphasis on graduate study became a major American development in the 'between-wars' period. 'Purposeful research' had been established in the States before the war, but was both in its infancy and largely developmental in character. Natural science, especially, lacked adequate financial support, a lack which has been corrected by a campaign of propaganda and publicity so that this situation has been completely reversed. It has been said that it was during the World War I years that " the American people first began to identify the contributions of science with the progress of our material civilization ". American science, in seeking essential support, has missed no opportunity to further this identification.

Some twenty-odd years ago the late Professor A. N. Whitehead, of Cambridge and Harvard, wrote: " The history of mankind is yet to be set in its proper relation to the gathering momentum of technological advances. Within the last hundred years, a developed science has wedded itself to a developed technology, and a new epoch has opened." This wedding is one of 'developed' partners and, if it is to be mutually stimulating and productive, it demands a clear understanding of the quite different interests and points of view of the two participants.

" The object of science is knowledge: the objects of art are works." Engineering, the modern version of ancient practical arts, asks "How?" Science inquires "Why?" On the one hand, the spokesmen of natural science have long argued that he who seeks to uncover new scientific understandings with usefulness or applications in mind, is doomed to disappointment. The slogan of 'science for science's sake' has been widely accepted. But this is not an area in which American workers can claim to have achieved any major distinction. We have been an intensely practical rather than a patient and laboriously inquiring people. We have excelled in applications suited to our own peculiar economic conditions, needs, and wants, but we have made notably few contributions to the advancement of 'pure' science. This truth has, since World War II, become more evident to us, and to-day science in the United States is receiving support that only a few years ago would have been regarded as fabulous. The viewpoint has also been developed through the widespread propaganda of science that all we need to ensure continued progress is more science. Engineering and industry are said to be merely applied science, and applications are regarded as certain to automatically follow scientific discovery.

The Practical Arts and the Growth of Science

Actually, of course, history reveals the story to have been the other way round. Much of modern science has originated in the search to explain the why of the methods, accomplishments, and observations of the practical arts. The arch and the truss were used for ages before their action was clarified through the development of structural analysis which rested, in turn, on a combination of practical testing plus basic mechanics. The steam engine preceded the modern theory of heat, as has the aeroplane the science of aerodynamics in more recent years. The explanation of many chemical reactions has followed their empirical use in industry.

The advent of electrical engineering in the engineering family has, of course, witnessed the reverse relationship—the development of discoveries in science into services for the use and convenience of man. But it is not only ridiculous but dangerous to assume that progress in engineering and industry will ensure continued scientific progress on the one hand, or that progress in science *per se* will automatically lead to continued leadership in engineering and industry. During the nineteenth century, for example, the British Isles produced a galaxy of distinguished scientists. From Darwin to Huxley and Maxwell to Kelvin there was no lack of outstanding scientific leadership and outstanding achievement in science. Yet at the end of the great Victorian Era, the birthplace of the Industrial Revolution was, technologically speaking, backward, unprogressive, and no longer an industrial leader. It is evident that technological progress depends on other achievements than in science alone.

As an able British leader, Sir Ewart Smith, has remarked: " Any real basic knowledge which is evolved is, broadly and relatively, quickly available to all, and it is therefore upon technological skill in application that the progress of industry and, consequently, the economic position of a nation will depend." To-day, of course, one cannot leave the discovery of 'real basic knowledge' to others who might, temporarily at least, keep it secret, but it is equally negligent to assume that, having this basic knowledge, applications will inevitably follow. The over-emphasis which is developing to-day in the teaching of science in our American engineering schools and the resulting decline in the study of the factors involved in, and the practical techniques of, applying both engineering and scientific knowledge under modern economic conditions and needs, may well bring about a critical condition in American engineering education. In the opinion of this writer the major problem American engineering education faces to-day is: How can we keep science pure, and engineering practical, yet stimulate the cross-fertilization which gives birth to continued engineering and industrial leadership and progress?

JAMES KIP FINCH.

SECTION III

PROBLEMS OF CONTROL, FINANCE, AND ORGANIZATION

In any consideration of educational control a distinction should be made between legislation which provides basic principles of operation (and in some cases specific regulations) and the less obvious determinants of practice which arise from the inter-relationships between various institutions and personalities. Legislative pronouncements alone give little insight into the actual mechanics of the process of institutional control. One difficulty is to provide regulations which are sufficiently detailed to give adequate guidance in the majority of cases and yet sufficiently flexible to allow for exceptions to the rule. Consequently national legislation frequently states principles of organization and control in the most general terms. For this reason reform on the basis of it is most difficult. There is also the problem of providing a consistent framework of legislation so that financial and statutory controls for existing organizational patterns are in harmony rather than contradictory.

The indirect, yet powerful, institutional controls are frequently the heritage of a particular tradition; sanctioned by time rather than by edict. Often they are the outcome of past struggles; compromises reached by competing groups for control of an institution. The autonomy of the European universities grew out of such conflicts between masters, students, and townsmen. To-day this autonomy is protected in part by law, partly by tradition, and also by the watchfulness of their members. Legislation often suggests that control of the universities is in the hands of government; a glance at the practical arrangements shows the case to be otherwise. On the other hand, the apparent security of a university to conduct its own affairs might be deceptive; for example, the financial support provided through the University Grants Committee by the government might in time place in jeopardy some of the autonomy of the English universities.

It is appropriate that in this section some of these issues should be examined. Where in the pattern of institutions of higher learning does control rest? Traditional prestige allows the universities to dominate this pattern. This is the case in England. So far academic autonomy has been little affected by the fact that the majority of the income of the universities is derived from government sources. If the universities fail to respond, however, to social demands—for more and more technologists, for example—government investment policy might divert funds from them to institutions more directly under public control. This might leave the universities impoverished. The point is that financial policy has a powerful influence on academic policy.

The questions posed by Professor Butts in his article on policy formulation in the U.S.A. are of universal significance. Who should make decisions about higher education? Who should formulate policy? The government? Faculty members? The public? The answer in Europe has been quite specific. Academic freedom has meant that, whatever legislation might lay down, policy formulation has been in the hands of faculty members and their elected officers. Control has been exercised through a number of committees—the court, the senate, and the academic faculty boards. The possible dangers of retreating from this position are all too clear, and in the next section case studies illustrating the kind of attacks which are made on academic freedom are given. Nevertheless, Professor Butts's arguments in favour of a checks and balances theory of university policy formulation deserve very careful consideration. In the light of American experience his claim is that trends in America which have placed policy formulation more solidly in the hands of administrative officers should be checked and more faculty participation encouraged. The health of a democratic institution depends upon the operation of a system of checks and balances. "In university government," he writes, "as in civil government, the principle of separation of powers and of checks and balances can prevent despotism and promote freedom."

In an English viewpoint, Sir Charles Morris analyses how university autonomy is maintained there. His defence of the system rests on the contention that the universities generally are alive and respond to the needs of the country. Dr. Dixon illustrates in a case study of teacher training in England the cross-currents of control which exist. He points out how *de jure* control of academic policy by faculty members of a university may mean little when financial control finally rests with a government department—the Ministry of Education. His further analysis admirably illustrates the extent to which the inter-relationships between the various institutions help to determine policy and practice.

One key to an understanding of the mechanics of effective control is to be found in the financial arrangement for any system. England has long prided herself upon the fact that the grant of public money to the universities through the mechanism of the University Grants Committee has left them free to pursue their own policies. Financial support without control of its spending has in short been one of the cherished principles of university finance. Mr. Vaizey's case is somewhat different. Whilst holding that the U.G.C. mechanism has been effective, he argues—contrary to widely held opinion—it has been so because it has been able to influence university policy. For this reason, perhaps, he would like to see a similar system adopted for the finance of the training colleges and colleges of advanced technology. One extremely significant policy associated with the finance of English universities concerns student grants. The full implications of this system have not been worked out, but it should not be assumed, without further question, that all students should have their university education financed by the state or by local authorities. There is a good case for this, but it is necessary to assess what effect this policy is having on the distribution of students between the various faculties and hence upon such things as national economic viability.

On the other hand, the principle of 'hire and fire' is sometimes accepted in the United States. There is also a strong feeling that every adolescent should have equal opportunities of acquiring higher education. Control is exercised by those who provide the money. Perhaps for this reason alumni, state legislatures, and the students themselves have had a far greater say in policy formulation—and especially in the state institutions—than is typical of Europe. Federal aid has been regarded with suspicion by some people because, it has been felt, it would imply Federal control. As it is, Federal aid is earmarked for certain specific purposes or allocated to individual students through the veterans' programmes. The desire to provide equality of opportunity has led to legislation which makes it compulsory for state institutions of higher learning to admit any student who has graduated from high school. Since there is no Federal control of high school examinations this has meant that state institutions have lost one of the academic freedoms held dear by Europeans. Is fear of Federal control exaggerated when state legislatures strongly influenced by public opinion have opened the doors of the universities so wide? Professor Hungate's thesis is, broadly, that American institutions of higher learning certainly need Federal aid if they are to equalize opportunity. He sees no reason to suppose that the grant of money would necessarily imply centralized control. The reorganization of higher education state-wise must be achieved without causing damage to the concept of academic freedom of the universities?

In presenting articles from England and the U.S.A. by authors who are not entirely satisfied with present financial arrangements for the institutions of higher learning in their own countries, a contrasting picture is drawn. It might suggest that in England the financial arrangements are such that the universities can virtually ignore social demands and the wishes of their students. On the other hand, some of the consequences of the American system of finance are those which have been most criticized by critics of higher education in America—lowered standards, no entrance requirements other than high school graduation, a hotch-potch of courses catering to the demands of students, and so on. Methods of finance might, in fact, have been more influential than critics imagine in the movement of the American institutions away from the European pattern.

Nevertheless, any institution which responds readily to an avid consumer demand is likely to flourish. Many of the most important problems of organization and reform in European and other universities are connected with an acute shortage of money. Professor Volpicelli outlines the most significant problems that exist for the Italian universities to-day. He sees a continuing dichotomy between the subject-matter approach and professionalism; he points to the harmful influence of the state examination system and to the division between teacher training for secondary school and primary school teachers. But finally the main problem is one of finance, and this of course dominates the subsidiary issue of recruiting competent teachers in sufficient numbers who are capable of doing first-class research work.

Finally in this section an account of the developments in the Lebanon is presented. Mr. Shahla describes only two sections of a pattern which includes French and state institutions as well as American and other privately controlled ones. In this meeting-place of Western and Near Eastern civilizations the aims of the universities are significant, since it is there that an interchange of ideas between potential leaders can most readily take place. Evidently the institutions of higher learning are prepared to accept their social task of preparing community leaders and spreading education more widely through their extension services. Again, one of the most serious problems is financial. It is almost impossible to extend higher education to the degree necessary on the slim resources available.

In general, private institutions are faced with a dilemma. They cannot raise enough money to do what they want to achieve, yet they fear that if they accept government money they may lose some measure of their freedom. If on the other hand they cater to the demands of students—if there are enough who can afford to pay economic fees, which is rare—then their orthodox standards may fall. The implications of control by legislation and control through lack of funds have to be carefully weighed. One of the most serious is the question of academic freedom. This is perhaps the most cherished of all university traditions. The next section is devoted to a study of this particular tradition and some of the attacks that have been made upon it.

THE EDITORS.

CHAPTER ONE

*Formulation of Policy in American Colleges and Universities**

PUBLIC discussion of higher education in the United States reached a new crescendo in the late 1950's. In addition to the anxieties about the great quantitative increases in enrolment that were soon expected, a heightened debate took place over the quality of American colleges and universities. The public asked: Is our scientific training good enough to compete with the Russians in the space age? Are we producing enough highly specialized engineers and technicians? The academic community countered by asking: Shall we rush headlong into such exclusive emphasis upon science and mathematics that we are in danger of neglecting the humanities? Of what use is a physical scientist who is innocent of the social and moral sciences? What profiteth it us if we maintain technological supremacy and lose the soul of a liberal education?

Such questions as these and their attendant arguments have been well publicized before the world in the typical American manner of frank, critical, hard-hitting, and sometimes lurid public debate over educational issues. But seldom did the public discussion face directly some questions that have concerned the university community for a long time: Who should make the decisions about American higher education? Who should formulate policy? The government? The board of control? The administrative officers? The faculty? The 'public'? Is it proper for laymen to be prying about in academic affairs? Is it proper for the Academy to be embroiled with the Market Place and the Forum? To understand the range of American answers to such questions, it is necessary to review briefly the historical background of the organization and control of American colleges and universities as related to their methods of formulating policy.

The legal, corporate, and financial control of American colleges and universities is usually vested in a board of trustees (for private institutions) or a board of regents (for state universities). These are typically non-resident boards of control made up of 'laymen' rather than of professional faculty members. In private institutions the board members are appointed by the self-perpetuating board itself; in state institutions the board members are appointed by state officials or elected directly by the people. The boards of control appoint the president, who acts as the chief administrative officer in carrying out the policies formulated by the board. Lesser administrative officers and faculty members are appointed by the board upon recommendation by the president. At the very outset, then, the 'public', through the lay (non-professional) boards of control, has always had a greater voice in American higher educational affairs than has been the case in the typical European university system.

---

* Parts of this chapter are adapted from a paper written for the Hundredth Anniversary of the University of Wisconsin and published in John Guy Fowlkes (ed.), *Higher Education for America* (University of Wisconsin Press, Madison, 1949), pp. 286–301.

Among all the issues that could be discussed here, only one can be dealt with in this chapter. This has to do with the relation among the three principal groups involved in formulating university policy: the board of control, the chief administrative officers, and the faculty. There have been two persistent outlooks concerning this relationship. The older and more conservative position looks upon the board of control as having the decisive voice in all institutional policies which are to be formulated under the expert guidance and leadership of the president, who is given large powers to carry them out. The newer and more liberal position has tended to argue for a greater role for the faculty in the formulation of policy, certainly with respect to educational policy if not to financial and budgetary matters as well.

Colonial Origins

The conservative position goes back to the beginnings of the American college in the seventeenth century. It should be remembered that the very origin of the university type of organization in the Middle Ages centred about the efforts of faculty members in the higher schools of the Church to organize themselves into guilds or 'universities' in order to achieve greater autonomy and freedom from the control of the bishops and the bishops' chancellors in the cathedral schools. As a result of long struggles with Church officials and with civil rulers, the university faculties of Europe achieved a large measure of control over their own policies.

As a result of the growing autonomy of the university faculties, the principal universities of England and the Continent were governed very largely by their faculties in the period of the seventeenth and eighteenth centuries, when American colleges began to be founded. In the American colonies, however, the religious motivations of the Reformation and the close alliance of Church and State led to a new pattern of control of higher education. The Puritans who founded Harvard College had brought no corps of professional teachers and no university organization with them. They did bring strong Calvinist convictions that a college should promote orthodox religious views and that the State should not only authorize but should *require* the college to do so. They therefore proceeded to use the General Court (legislature) of the Massachusetts Bay Colony to authorize the establishment of Harvard College in 1636. Inasmuch as there was no trained body of professional teachers to whom direct management of the new college could be entrusted, the legislature delegated supervision of the college to a 'lay' Board of Overseers consisting of officials of the State and ministers of the Church who represented the dominant orthodox elements in the theocratic colony.

After Harvard had been functioning for some time a charter was issued by the legislature creating a resident Corporation to which was delegated the power to govern the college directly, subject to the general approval of the overseers. This first corporation was made up of the president and five resident tutors or faculty members of the college. Over the years, however, the resident faculty members of the corporation were replaced by non-resident laymen. This development led to many bitter struggles between the faculty teachers and the outside forces during the eighteenth and nineteenth centuries, but the practice of appointing non-resident members to the board of control finally won out, and faculty participation in policy formation declined.

The story at other colonial colleges varied in details. In some colleges the Scottish influence of non-residential boards of control chosen from the community was strong. Gradually, the experiment with dual boards of control gave way to the principle that governing authority should be in the hands of a single, non-resident, non-faculty board of control. This seemed only natural in a day when religious orthodoxy was deemed so essential and when most colleges were founded upon the initiative of one or another of the religious denominations. Most members of boards of control were thus clergymen, professional men, government officials, or men of wealth and 'quality' who might contribute not only their good judgment but their monetary resources to the college. Besides, the teachers were often young and unmarried transients considered to be lacking in good judgment in the affairs of the world or likely to kick over the traces of orthodoxy. These qualities, of course, were not looked upon as being dependable sources for the wise and provident government of college policies.

Here, then, even during the colonial period, were signs of an administrative organization in American colleges quite different from that of European universities. In fact there was no university type of organization in the American colonies. All the institutions were small, residential, liberal arts colleges, modelled upon the English colleges. There was no superstructure of university control over examinations or granting of degrees. In fact the colonial legislatures actually usurped the degree-granting privileges of the Crown when they granted the original charters and passed enabling laws giving Harvard College and Yale College the right to grant degrees. The main motivation was to avoid visitorial powers from Anglican England that might interfere with their Calvinist religion. Each small American college thus went its own way unrestrained by the common standards enforced by an over-arching university organization and university faculty.

Inasmuch as the teachers or tutors were not professional scholars and not organized as a profession, they had relatively little voice in college affairs, and the power of the individual boards of control was that much greater. And inasmuch as the members of the boards of control were non-residents, the real day-to-day power increasingly fell into the hands of the college president, who was typically a member of the board of control. A wide gap in status and power thus grew up between the president, who represented the legal power of the board, and the faculty, who had little more status than that of employees in any other corporation.

Later Developments

In the nineteenth and twentieth centuries three trends took place of primary importance to the development of American college and university government. First, the size and complexity of institutions of higher education rapidly increased as the older, rather narrow conception of a liberal arts college began to give way to the conception of a large university devoted to a wide variety of disciplines. Fields of study multiplied, budgets expanded, and professional, technical, and graduate schools of university grade in many fields were added to the undergraduate colleges. This increasing complexity led to the greater elaboration of administrative functions. Presidents, vice-presidents, deans, departmental heads, financial officers, admission officers, registrars, librarians, and public-relations officers began to play a larger and larger role in institutional policy-making.

A second trend was the development of state universities and other publicly supported and controlled institutions of higher education. These were looked upon as public corporations authorized by state constitutions and brought into being and supported financially by laws of the state legislatures. Despite recognition of the principle of public responsibility among state institutions, the membership of their boards of control continued to follow the earlier pattern. State as well as private boards of control consisted largely of business men, industrialists, philanthropists, and professional men, especially men of the professions of law and medicine. The experience of the business men naturally led them to think of the task of the board of control as analogous to the task of the board of directors of a business or industrial corporation. The president of the university was looked upon as the general manager of the corporation; and the faculty members were often thought of simply as the salaried employees whose job was to teach or conduct research, and not meddle either in the decisions of high policy or in the day-to-day administrative details of running a large enterprise.

As a result of these two trends the formulation of policy came to be more and more solidified in the hands of the administrative officers, supported by or approved by the legal authority of the non-resident board of control. The administrator was looked upon as the efficiency expert who could make 'sound' decisions, in contrast to the stereotype of the absent-minded professor with unrealistic views or the radical professor with 'dangerous' ideas. The board of control theoretically represented the public interest in higher education, but in too many cases it represented only a narrow segment of the whole public.

The tradition persisted into the twentieth century that the basic policies of the institution should be set by the board of control upon recommendation of the president. When the boards were dominated by a sectarian religious outlook, they did not see why they should tolerate views expressed by professors that would be at odds with the majority of the board. When the boards were dominated by a business outlook in the later nineteenth century, they did not see why they should tolerate views critical of the prevailing practices or outlooks of business enterprise. When slavery clashed with abolition, or science with religion, or public regulation with *laissez-faire*, boards of control tended to want conformity with their views to be imposed upon faculties. In the late nineteenth century, boards of control increased their efforts to silence or dismiss professors who expressed 'unorthodox' views.

Meanwhile a third trend was taking place. College teaching was becoming a profession requiring more advanced training and greater competence. The popular image of the befuddled and ineffective college professor has largely been replaced by that of the highly trained scholar of the sciences, social sciences, humanities, arts, technologies, and the professions. College and university faculties have become resources of technical expertness and wisdom in the whole range of human knowledge upon which business, industry, agriculture, labour, government, education, the professions, and social-welfare agencies rely heavily. It goes without saying that able administrators and far-sighted boards of control have contributed enormously to this development of the competence of university faculties. But the profession itself made notable gains in its own improvement. The work of many learned societies and professional organizations could be cited in this connexion. Nor should be forgotten the part that the thoughtful planning of responsible organized functional groups in American society has played in this process. There is credit enough for all to share.

The Democratic Purpose

Thus, in the early twentieth century, faculties began to become ever more restive about the subordinate position they played in the governing and in the policy formulation of their institutions. The influence of the German universities, with their scholarly standards of competence and their ideals of freedom of teaching and research, played a strong part in the awakening of American faculties and the strengthening of their attitudes towards themselves as capable of greater self-government. This movement had repercussions for the problems of academic freedom, but that is not the main issue here.

The central point is the growth of the liberal position with respect to the role of the faculty in formulation of institutional policy. Its rationale goes something like this : A democratic society is one in which there is substantial self-government, in which persons exercise a free and uncoerced share in the making of those decisions that concern them. The principle of active participation in policy-making is the essence of a democratic group whether that group be the family, a local neighbourhood, a small or large political unit, an occupational group, a college or university, or any other institution or association of persons.

Thus, the idea gained headway that higher education should serve a democratic society in at least two *direct* ways as well as in the general promotion of scholarship. First, higher education should help to prepare young people to participate democratically within the principal groups to which they will belong. The free university will continue to stress the pursuit of knowledge and intellectual competence, but an important social challenge to higher education to-day is to devise better ways to help young men and women become effective and intelligent members of the political, economic, and social groups that characterize life in a free and open society.

Secondly, a higher education that is devoted to democracy should seek to improve directly the quality of the on-going activities and the organized enterprises of the adult community. Merely to call attention to the myriad services which American universities carry directly into the homes, the farms, the schools, the business and industry, the labour unions, the government, the professions, and the social services of their communities will suffice to indicate what is meant here.

Not only should state universities be guided by these two social aims, but *all* colleges and universities are bound to recognize in greater or lesser degree their responsibility to the public welfare. A purely 'private' higher education devoted simply to the private interests of individuals is an anachronism in the modern world. Of course, there may be a division of labour among different kinds of higher institutions, but all institutions of higher education carry public responsibilities. The effectiveness of all institutions, public and private alike, should be tested by their service to the general welfare. Higher education that simply helps the individual to serve himself is not a 'higher' education at all, but a 'lower' order of education.

The Liberal View of Policy Making

The question posed by the liberal position is how best to achieve policies that will improve the democratic effectiveness of higher education in serving the public welfare of a free society. If the aim of higher education were merely to help the individual student achieve personal success and advancement, the problem of policy formulation would be of secondary importance and would be relatively easy to establish. The test of the value of such a higher education would be simply: How successful are the graduates in getting jobs and making money? But if the aim is service to the public welfare, then the problem becomes much more difficult. Then policy-making becomes of critical importance as decisions are made by someone concerning whether to serve this or that interest in the community, to prepare youth for this or that activity, to remain provincial and parochial, or to try to serve the larger community, the nation, and the world.

The liberal thesis and faith are that the public welfare in a free society will be served most desirably by higher education when participation in policy formation is achieved by those who are concerned in those policies. If higher education is genuinely to serve a democratic America, higher education itself must be truly democratic. If its students are to be educated for democratic life, its institutions should function democratically. The persons or representatives of groups involved in the policies of higher education should participate appropriately in the formulation of those policies that concern them.

There are many different ways to define or classify the various groups of persons who are concerned with the policies of a college or university. One category of such persons would be the members of the resident or working campus community. Included here are the administrative officers, the voting faculty, the other members of the instructional and research staff, the non-academic employees, and the student body. A second category would be made up of the members of the non-resident community. Included here are the board of control and the 'public', consisting of the state and federal governments, *alumni*, parents of students, potential students, and the adult world of organized groups and institutions.

It would make an interesting project to try to define the appropriate role of all of these interested persons in the policy formation of higher institutions, but it is a far too ambitious task for this chapter. Rather, attention will be devoted to the administration and the faculty of the resident campus community and to the board of control of the non-resident community.

The problem before the liberal position, then, is to work out the respective responsibilities of these three groups in the formulation of policy for higher education. In general, the liberal proposition is that higher education will best serve the public welfare in a democracy when there is a fuller participation in policy formation by the faculty along with the administrative officers and the board of control. When appropriate methods of communication and joint planning are instituted among these groups, the democratic character of higher education will be enhanced. Whenever there is too much authority or influence on policy wielded by one or two of these groups to the exclusion or subordination of the others, effective freedom in higher education will be reduced.

The brief history cited above reveals that some of the conservative traditions of American higher education stand athwart modern efforts to increase democratic participation by faculties in university government. The inherited patterns of control by lay boards and by administrative experts have tended to reduce the role of the faculty. The liberal thesis would therefore argue that democratic effectiveness will be increased by achieving a more appropriate balance among these three groups.

Faculty Participation

During the past fifty years there have been increasing complaints by faculties that they did not have their share in the formulation of institutional policy. They complained that the presidents and administrators had become too powerful and too autocratic. They argued that members of boards of control viewed the universities too much on the pattern of business corporations, and faculty members as mere employees. Faculty members repeatedly claimed that the balance should be redressed and that they should have a larger voice. As early as 1915 the statement of principles set forth by the American Association of

University Professors soon after its organization included the argument that the real responsibility of the highly trained professor was to society in general and not to the particular board of control. By analogy, as American Federal judges are *appointed* to their positions by the President of the United States, not *employed* by him, so professors as professional men are appointed by the governing board to carry out their social responsibilities of teaching and research in an atmosphere of freedom rather than in a framework of constraint or conformity. This freedom properly exercised would include a large measure of influence upon institutional policy.

But the question remained: Have faculties in general been given adequate opportunity to contribute their talents to the making of policies for their own institutions? Undoubtedly gains have been made, but the judgment of the American Association of University Professors has been that colleges and universities have not moved fast enough or far enough to meet the demands of a democratic theory of higher education. More than any of the other professions, a university is a group or community affair. Most other professions are largely made up of individual practitioners who deal with individual clients or patients, but by definition a university or college teacher is a part of an academic community. To be a democratic community its members should be active participants in the decisions that affect them.

And yet what is the actual situation? In a large-scale investigation of 228 institutions, conducted by the American Association of University Professors in 1939 and 1940, the following situation was found[1]:

(1) "The typical college and university does not have a definite plan in operation for facilitating exchange of opinion between the faculty and the trustees or regents." Although 43 institutions had some plan in operation, the largest number (132) had no plan at all, a few had *ad hoc* or intermittent committees, and still fewer had regular continuous committees, or non-voting membership by faculty on boards of control; a very few had voting membership by faculty members elected as such to the board of control. In other words, there is relatively little communication between the legal authority of an institution and the most important body of its constituent members. A government, a business, or a labour union operating on this basis could not be called democratic; no more can such a college or university be called democratic or achieve democratic ends.

(2) "The typical college and university does not have as part of its definite procedures the consultation with the faculty by the board of control in the choice of a president." Some institutions have regu-

---

[1] See A.A.U.P. *Bulletins* for April 1940; April 1941; and Spring, 1948.

larized or *ad hoc* arrangements, but most institutions disregard faculty opinion on this important function.

(3) In the typical college and university the deans and department heads are appointed without consultation with the faculty concerned. In a very few institutions the dean or department head is elected; in others, nominating panels are elected by the faculty or some other kind of formal consultation takes place; but in most instances there is little or no regard for faculty opinion.

(4) The typical college and university organization provides for consultation by the appointing officers with the department heads but not with the faculty members themselves regarding new appointments, promotions, and dismissals of teaching personnel, or budgetary needs. In some institutions greater consultation is undertaken; in some there is no consultation at all; but in most cases the department head alone is consulted.

One further item of note. Among the twelve institutions having the largest amounts of faculty self-government, the most prominent were large public institutions and small private liberal arts colleges. There was no teachers' college, no technical school, and no Church-controlled institution among them. On the other hand, among the thirteen institutions having the *least* faculty participation there were five Church-controlled institutions and four teachers' colleges. When a re-check was made in 1948 the best that could be said was that in major respects the situation had not changed much since 1940, but that there might be a slow liberalizing influence in some institutions.

Another full-scale study of 361 institutions begun in 1953 and reported on in 1955 showed that there had been an increase in the amount of consultation concerning the determination of institutional policies in the fourteen years since 1939. The trend was summed up by the A.A.U.P. as follows:

"The implication which the data force upon us is that the general picture, so far as faculty participation in the selection on institutional policies is concerned, is somewhat better; in some spots it is a little worse, but in other spots it is very much better. A slow but pervasive shift towards more consultation of the faculty by the administration is evidently in process." [2]

The Conflict of Interests and Opinions

Given the historic traditions noted above, and the present complexities of American society and of higher education, any proposal to extend the participation of faculty members in the formulation of institutional policy runs into very serious difficulties, only a few of which can be mentioned here.

---

[2] A.A.U.P., *Bulletin*, Spring, 1955, p. 77.

There are, first, the conflicts between administrative officers and faculty members. These are too common the world over to need much detail. They occur over the matters of highest importance as well as in the day-to-day irritations of running any institution. Too often the professor looks upon the administrator as an arbitrary tyrant or a budget bully. And too often the administrator looks upon the professor as a narrow-minded specialist or an irresponsible social reformer whose main interests are a higher salary, less work, and security of tenure behind which to hide his incompetence. These descriptions are, of course, caricatures, but the stereotypes become all too common where the tradition has been built up that the administrator is an employer acting as an agent of the board in his dealings with the faculty, who are looked upon merely as employees to be hired and fired.

There are, secondly, the conflicts between the non-resident board of control on one side and the resident administrators and the faculty on the other side. Sometimes the president sides with his faculty members who may be under fire, and sometimes the faculty will rise up to support a president who is under pressure from the board to execute policies which they both believe are inimical to the best educational interests of the institution. Sometimes these conflicts break into public quarrelling, or quiet dismissals, or dramatic resignations, especially when questions of academic freedom or tenure are involved. More often they are reflected in the annual tug of war over the budget, in which the board tries to reduce the requests of the president who has already pared down the requests of the dean who has already pared down the requests of the department head who has already pared down the requests of individual faculty members.

There are, finally, the conflicts that arise when individuals or groups from the public, from organized interests, from the legislatures, or from *alumni* exert pressures upon the board, upon the administration, or upon the faculty with requests to do things they are not doing or with demands to refrain from doing things they are doing. These issues can become extremely vexing when matters of political ideology, or economic outlook, or religious conviction are at stake.

Now the trouble is that there is no guarantee that any one of the participants involved in these conflicts will always be on the right side. Sometimes the greater interests of higher education may lie with a board that is wide awake to the needs of the public in contrast to the narrow or vested interests of a somnolent administration and faculty. At other times the greater interests of higher education may lie with a forward-looking administration and faculty who are being coerced or hamstrung by the suspicious investigations of a narrow-minded or prejudiced board or legislative committee. Sometimes the best interests of higher education may rest with a forward-looking president or administrator who is trying to prod into action a faculty that is dead or nearly dead on its feet. At other times the best interests of higher education may rest with a progressive faculty that is trying to throw off the shackles of overly cautious, unimaginative, stodgy, or high-handed policies of a benighted administration. Sometimes the greater interests of higher education may be served by public officials, *alumni*, or organized groups trying to make a tradition-bound college or university more responsive to the needs of its local or wider community. Sometimes, indeed, the better interests of higher education may be promoted by wide-awake students or prospective students whose proper demands bring to life a moribund institution. Certainly, the shot in the arm which thousands of veterans gave to higher education after World War II is a case in point.

Principles of Policy-making

Now if sweetness and light are not always on one side, then what hope is there to improve the democratic effectiveness of policy-making? It is not enough simply to say that everyone should ' be reasonable ', or ' be co-operative ', and show a more generous desire to take account of the other person's opinion. Nor is it enough to say that everyone should just sit back and wait for death or retirement to make it possible for better appointments to be made. The first course smooths over real conflicts of interest: and the increasing life-span of Americans makes the second course too slow. Rather, it is necessary to define the principles of procedure by which institutions are most likely to arrive at policies that will serve the goals of a democratic higher education in a free society. In other words, who can best be trusted to formulate desirable policy, and what are the methods by which desirable decisions are likely to be reached?

The conservative answer has been largely that a 'strong' administrator can make better decisions, can carry them out more efficiently, can save the faculty from burdensome committee work, can cut through cumbersome debate, discussion, or opposition to change, can free the faculty for concentration upon teaching and research, and can assure the board of control that no untoward activities are being undertaken that will harm the public relations of the institution.

The liberal answer to these questions comes back to the original thesis that better policy decisions will be made when there is the fullest and freest participation in the making of those decisions by the three groups most directly concerned: the board of control, the administration, and the faculty. The liberal principles are well illustrated by recommendations proposed by the American Association of University Professors through its Committee 'T', which has been at work intermittently since 1917 to enlarge the role of faculties in college and university government.[3]

In general, the following four liberal principles of procedure have been gaining more and more support in recent years among leading American colleges and universities:

(1) The *first principle* is that at the department level the faculty, including the department head, should "exercise what is in effect a collective authority over the teaching and research under their jurisdiction".[4] There should be genuine, thorough and critical discussion with respect to the important matters of educational programme, appointment, promotion, proposed dismissals, and budget requirements of the department.

Small departments may operate as a committee of the whole; large departments may require one or more committees to which are delegated responsibility for investigation, discussion, and proposal of policies. Always, safeguards must be set up to prevent the faculty from becoming burdened with administrative details. Everyone trying to do everything is not democracy in administration. It is chaos.

After full and free discussion, decision may be made in one of several ways: by the head of the department as he takes account of the discussion; by consensus reached through the faculty's discussion; or by formal vote binding upon the department head. Just what form this should take may vary among institutions. Different matters of policy, indeed, may need to be decided differently. On many questions the ideal way would be arrival at a genuine consensus. Where this is impossible after determined effort, formal voting is undoubtedly necessary. The best decisions are likely to be made over a long period of time when a department consciously examines its own procedures and sets up regularized ways of making its decisions.

One of the most important decisions of policy for a department is the selection of a new department head. Participation by the department faculty in his selection may be by informal consultation with the appointing officer, by formal consultation, by nominating a panel of names from which an appointing officer must select one, or by direct election. Informal consultation is better than no consultation, but it is the *minimum* requirement of participation. The dangers of exclusive reliance upon informal consultation are that misunderstandings may unintentionally or deliberately arise, that some favoured persons may be selected for consultation, that the process may not be representative of the range of outlooks present, and that common understandings are not clear to all concerned. As fast as faculties can achieve success by other methods mentioned, they should do so. In any case, the method should be discussed and regularized so that arbitrariness is minimized and freedom of discussion is maximized.

---

[3] See reports of Committee T in *Bulletins* of the A.A.U.P. as follows: March 1920; May 1924; March 1936; March 1937; February 1938; April 1940; April 1941; Spring, 1948; Summer, 1953; Spring, 1955.

[4] A.A.U.P. *Bulletin*, Spring, 1948, p. 59.

This matter of group discussion and group decision is not an easy one. In most cases it must be learned. It is not a native endowment of human nature, and it is not learned without sincere effort and practice. It has a discipline of its own about which more and more is gradually being learned. It is a matter to which those concerned with the in-service improvement of college faculties should be giving serious attention. It is not a matter of learning to conform or simply learning to 'co-operate', it is a rigorous matter of learning to present and analyse ideas, to criticize and be criticized, to engage in the rough and tumble of free debate with decency and vigour. Indeed, prospective college teachers might well begin the process of learning how to participate in policy formulation as a part of their graduate work, along with training in subject-matter, teaching methods, research, and a knowledge of the culture which education serves. It takes an atmosphere that welcomes challenge, creativeness, and criticism; no 'organization man' outlook will do.

(2) The *second principle* is that at the level of school, or college, or division in a larger institution similar principles should prevail. The faculty or its elected representatives should have collective authority over the educational policies within the jurisdiction of that faculty and should control its own organization and committees. Again, there should be full and free discussion on important matters by the faculty concerned or by its representative committees. Whether final decision is in the hands of a dean or other administrative officer, or whether final decision is in the hands of a representative committee of administrative and faculty members, there should be adequate discussion of educational programme, appointments, promotions, salary schedules, tenure, leaves of absence, retirements, dismissals, and budget requirements. In general, the centring of basic policy decisions in a truly representative and responsible committee of administrative and faculty members working together can be an important means of effective as well as of democratic self-government.

Formal, written statutes or by-laws defining the regularized procedures for settling these matters can be an invaluable aid in preventing arbitrary, wilful, or impulsive decisions and in achieving stable policies, better morale, and better decisions. Indeed, if the faculty as well as administration could work together to draw up such written statutes where they do not exist, or to revise those that do exist, valuable gains towards mutual undrstanding and expectations may be achieved by joint participation in such an enterprise. Working under agreed-upon statutes can mean ' government of law and not of men ' in an academic polity as well as in the affairs of state.

Of course, many administrators will object to the participation of the faculty in such policies as have been named. They will argue that the administrator is in a better position to see the needs of the whole institution than faculty members are, because the administrator spends his whole time at it and because in the last analysis he is held responsible by the board of control for the decisions. There is an element of soundness in this argument, and faculty members cannot spend most of their time in policy formation and certainly should not spend time on the administrative details of executing policy. However, it is too often assumed that a single administrator can make wiser decisions without benefit of the combined judgment of his faculty. To make the exceptional case in which this may be true into a general principle of action is indeed to set a dangerous precedent.

At least formal consultation by deans or directors with the faculty concerned or with its delegated representatives is the *minimum* necessary to ensure that the administrator operates on the broadly based and thoroughly considered judgment of the faculty rather than upon haphazard or narrow channels of communication through consultants carefully handpicked by the administrator himself. The liberal administrator welcomes the open, full, and frank criticism to be achieved by free faculty discussion and debate in formal legislative sessions of faculty meetings as well as in the more informal discussions of smaller groups. Failure to encourage such criticism of policies leads to lowering of morale, strengthening of cliques and factions, and faculty-club grumbling and resentment.

(3) A *third principle* is that the faculty of a school, college, or division should have a voice in selecting the chief administrative officer who presides over that unit. There is a basic conflict of opinion here as to whether the dean or divisional director is a responsible agent of the faculty he represents, or whether he is simply an agent of the president or highest administrative officer. The president will argue that he needs a dean with whom he can work well, in whom he has confidence, and who will work well as a member of his top-level administrative team. And the president is right. But the faculty members also feel that the dean should be fully representative of *them* in the highest administrative

councils of the institution, that he should be one in whom *they* have confidence and one who acts as the chief spokesman for their professional concerns and interests in the institution.

The *minimum* requirement of participation to meet both these claims is some kind of regularized formal consultation or nominating panel elected by the faculty. There is considerable difference of opinion as to whether direct election of deans by the faculty should be the standard practice. There is far greater agreement that the process of selection of deans should be regularly and publicly known by those concerned and should be embodied in written statutes or by-laws. Whatever method is devised, it should give some measure of discretion to the president in the selection of deans, while at the same time giving a safeguard of initiative and approval to the faculty.

(4) The *fourth* and final point here has to do with the board of control. The liberal view is that the general faculty should participate with the board of control in the nomination of a new president. The legal right and duty of the board of control to appoint a president is almost universally established, but it seems to be only the better part of wisdom that the faculty should have some part in the *nomination* of the names of persons who are to be considered by the board of control. Particularly is this participation by the faculty necessary if persons with little or no experience in institutions of higher education are to be appointed as presidents of colleges and universities. This participation often involves some kind of formal consultation between the board and the faculty, or it is sometimes worked out by joint committees of the board and the faculty charged with the responsibility of agreeing upon a list of nominees from which the board will make the appointment.

In addition to the specific occasions when a new president is to be selected, it is sound practice for a board of control to have some regular plan whereby the faculty and the board can communicate directly with each other in addition to the channels of communication which are usually limited to the president. It would seem to be preferable that some continuing channel of communication be set up through regularly functioning joint committees. In some few institutions certain faculty members attend board meetings on a non-voting basis, and in others some faculty members are elected to the board as voting members. Any of these plans would be preferable to irregular arrangements or to no plan at all.

In general, the liberal position agrees that the pattern of non-resident boards of control can be a most desirable aspect of American higher education if their role is confined to consideration of policies proposed by the president and faculty. It is valuable for the professional staff to have the friendly and interested counsel of persons who have become intimately acquainted with the general nature of an academic community and particularly knowledgeable about their own institution. Such a board can be a great strength of support for the faculty and president in dealing with the public and with those who provide the financial resources. The trouble arises when boards of control try to interfere with the educational policies that are properly the realm of the professional faculty and in which the faculty ought to be supreme. Indeed, both president and board should be bound by educational legislation properly and freely considered, debated, and decided by the faculties. The fine line, however, between the relation of educational policy and budgetary considerations is one that causes much difficulty. It requires constant study by all concerned.

As will be apparent, the crux of the liberal position is that the traditional predominance of administration and board in policy-making should be somewhat more equalized by larger participation of the faculty at the various levels of institutional government. But the role of the lay public in policy-making is not nearly so well agreed upon. Faculties are sharply divided about the extent that universities should respond to public demands upon them. But the liberal position is most likely to agree that the best way to achieve a more balanced participation from the public in formulation of policy is to ensure the presence on the board of control itself of members who represent more fully the 'public' whom the institution should serve.

This would mean that those who have the task of selecting members of boards of control should carefully examine the present membership of the boards to see if they are genuinely representative of the major occupational and functional groupings in American society. Most members of boards of control are intelligent, conscientious, and competent persons. They do an excellent job with respect to their background, experience, and interests. It is considered desirable, however, for institutions that desire to serve genuinely the whole public to be sure that their boards of control genuinely represent not only the business and professional interests but also the agricultural, labour, minority, and public-service elements in the community they serve. This should not, of course, be done on a narrowly or mathematically conceived basis calculated to serve partisan political, economic, or religious ends. But it could be done by appointing persons with backgrounds in agriculture, organized labour, public-administration services, and minority groups who have all the high qualities and competences of the majority of those who now serve on boards of trustees and boards of regents.

The Principle of Checks and Balances

In the long run, then, the liberal faith is that the best decisions concerning policy will be made when there is the freest amount of two-way communication among the groups most vitally concerned in the policies of higher education and when a proper balance of co-operative participation is achieved among these groups. In university government as in civil government, the principle of separation of powers and of checks and balances can prevent despotism and promote freedom. The ideal is that the board of control, whether private or state controlled, represents legitimate public interests in higher education, and the faculty and administration represent legitimate professional leadership in promoting teaching, learning, and scholarship. Each therefore has a significant role to play in the formulation of academic policy. If the boards of control become too domineering, the universities run the risk of becoming the tools of majority or minority groups and losing their freedom. If administrators have too much power, there is the possibility of autocratic control that may neglect important intellectual and scholarly interests. If the faculty is given full sway, there is the possibility of academic isolation and self-serving neglect of legitimate social interests. Somewhere in a dynamic balance of these forces is to be found the genius of American higher education as it seeks creatively to perform its responsibilities in the realms of the public welfare, professional leadership, autonomous scholarship, and education for freedom in a free society.

R. FREEMAN BUTTS.

CHAPTER TWO

Organization and Control of Universities in the U.K.

To an older generation of university men 'organization' and 'control' would have seemed inappropriate words to use of a university. A university was a society or collegium, and like a family or a club did not need anything so articulated as an organization. It hardly called for any instrument of control. It existed for well understood purposes, had a traditional way of life of its own, and consisted of like-minded scholars who lived and worked side by side, if with some family quarrelling, yet essentially in natural harmony, giving one another comfort and support. Even at the beginning of the present century, and still in the years between the two World Wars, life in a university in Britain could still be very unlike what Sir Winston Churchill has called "the clatter and buzz" of the world outside, and could go its way quietly as if in a kind of backwater, "the world forgetting, by the world forgot".

All that of course has had to change. With the coming of modern science and the need for ever-increasing sums of money the universities have had to face almost all the problems there are of organization and control; and for their particular kind of society these problems present themselves in difficult forms. Not unnaturally universities have tended to resent the necessity to give their minds to such matters, and have been slow to accept the common destiny of all large concerns in an industrial world. But the ineluctable fact is that they must have money in very large amounts; and all the signs are that they can only get it from governments. They have therefore to be able to explain themselves to governments, and even to public opinion. They have to have a 'policy', and also an administrative system which can put the policy into effect in an academic society which is by its very nature highly individualistic and indeed essentially anarchic. With all this the universities rightly feel a duty to preserve as much as possible of their natural freedom and looseness of association, to keep as much as they can of the old 'collegiate' life in the new highly organized world.

The universities of Oxford and Cambridge are still, in principle, entirely self-governing academic communities. They may, making a concession here and there to modern conditions, accept advice from committees of laymen and consent to have some of their new funds governed by lay trustees; but by constitutional principle, and to an overwhelming extent in actual practice, each is governed, in business affairs as well as in academic matters, by boards, councils, and committees which consist entirely of academic members of the university. How long it will be possible for them to maintain this position, or desirable for them to attempt to maintain it, may not perhaps be easy for them to determine.

Autonomy and Freedom

On the face of it a university should by reason of its very nature have a very high degree both of external and of internal freedom; external because it is more important that it should be able to preserve its character as a university than that it should perform some ephemeral service, however immediately desirable, to church, state or the community at large; internal because the physicists, for instance, should not be too much controlled by the classical scholars nor vice versa, nor either of them by some independent authority equally devoid of any real insight into both. There will always be a case for asking governments, who will increasingly pay the piper, to leave the calling of the tune to academic people; but it is not perhaps easy to see why as a matter of basic principle governments should continue to yield complete sovereignty in academic affairs to laymen who, if no worse, are not necessarily any better than elected persons such as members of parliament. It seems, therefore, to be a practical question of cardinal importance whether any given kind of university self-government can stand upon its own feet and vindicate itself by its actual performance in the circumstances of the modern world.

This question raises itself as an important and pressing matter of policy for the modern English universities, since there can be no question that they have been moving quite considerably in the direction of greater academic self-government in recent years, and especially since the Second World War. This movement has in general been allowed or encouraged by laymen and by academics alike. Academics have not needed to ask themselves any searching questions about the matter because, belonging as so many of them do either historically or spiritually to Oxford or Cambridge, they have assumed by instinct that such a move is undoubtedly in the right direction. The laymen, themselves also in large numbers sons of the two ancient universities, have perhaps deliberately formed the view that their responsibility is to give help and guidance as ‘ business ’ or ‘ practical ’ men, and advise as ‘ plain ’ men in such matters of policy as immediately affect the nation. In other words, the laymen have concluded from experience that a mixed academic and lay government is good for universities only so far as it can secure and defend a very high degree of independent control by academic persons of all academic affairs.

This, if it is true, is of very great importance for the destiny of British universities. In the public arena academic self-government for the universities, and indeed any kind of real independence or autonomy, will finally have to be defended not by the academics themselves but by laymen. In a world where academic policy, and even academic practices and procedures, have in some significant measure to be adjusted to over-ruling considerations of finance, laymen will have to give their judgment that academic self-government, working under suitable constitutions, can do this at least as well as anything else—while it of course has the additional advantage that academics have direct insight into the needs and difficulties each of his own line of research and of education. If laymen cannot feel justified in giving this testimony, the cause of self-government in universities is on the way to being as dead as it already is in lower schools and other kinds of colleges. In such institutions the over-riding principle of government is public policy, which in effect means nearly always some immediate public need; and the judges of policy are, naturally enough, not the academic or professional people concerned, but persons specifically elected to take responsibility for forming and executing it.

The great merit of the Oxford and Cambridge systems of university government, neglecting for the moment the differences between them, is the sense of freedom which they can give to colleges, faculties, and individual scholars to get on with their work without interference and in their own way. Even so short a time as twenty years ago such freedom at Oxford, if Oxford may be taken for the moment to represent Oxford and Cambridge, seemed to the individual scholar and teacher to be almost absolute. Oxford was, as it still is, mainly an ‘ arts ’ university, and most of the decisions affecting education or the promotion of new knowledge in the university could readily be taken by the college, faculty or individual concerned with little or no central supervision or control. This undoubtedly seemed to most people to be the right way of life for a university, and those who were concerned with university finance sought to conduct its affairs, using every possible stratagem and contrivance that ingenuity could devise, so as to preserve and maintain this way of life.

Under this happy dispensation examinations were of course strictly controlled, through statutes and regulations, by the university itself; but teaching—and Oxford was very much a ‘ teaching university ’—was almost entirely free and unregulated. The admission of students was in the hands not of the university but of the colleges; and it was the colleges which undertook in practice nearly all the teaching and paid the salaries of nearly all the teachers. Professors and readers, appointed to the service of the university itself, though attached to colleges were very much a race apart. In the majority of faculties, that is in the non-scientific faculties, they had no particular authority or standing in the making of academic decisions by the university, still less by the colleges. Their business, coinciding with their vocation and their pleasure, was to continue with their own chosen work as scholars, and to offer within the university a certain number of lectures and of periods of 'informal instruction' for the advantage of any students who might wish to come. They could assume that the main tasks of teaching in their own subjects would be carried out, without any supervision or control on their part, by the colleges; and they might or might not themselves be scholars of greater distinction than particular college 'tutors' in their own subjects. At a meeting of a faculty or sub-faculty, which determined lecture lists and regulations for examinations, a professor could vote simply as a member and could take his turn as chairman only if personally elected to do so. Since attendance at lectures by students was normally voluntary, and there was no obligation at all upon examiners to take any account of lectures in setting examination papers, the determination of lecture lists was in any case not of more than moderate importance. College tutors could, and did, follow their own ideas, or the ideas of their colleges, in arranging the reading of their students; their only responsibility was to teach well, and to ensure that their pupils, provided that they followed within reason the advice given to them, would not find themselves at undue disadvantage when they came to face their examiners. In a word, teaching could be almost entirely free and unregulated; professor, tutor, and student alike could go his own way happily knowing that nothing was subject to systematic and authoritative regulation and control except examinations.

Few if any universities in other countries have ever enjoyed so much freedom as this. But it must be remembered that there are still many scholars in the United Kingdom, now alive and teaching, who lived for many years under this kind of system and who still feel at heart that a university which is unwilling or unable to conduct itself in some such way as this is not a true university. Nor is it surprising that a considerable number, though no doubt not a majority, of the younger university men and women think the same, and tell themselves that in so far as a university moves towards taking on the structure of an industrial corporation or of a government department it is indeed ceasing to be a university; it is something like this older Oxford and Cambridge system which they are thinking of as a proper ideal. Two things, however, make it difficult to believe that the very loosely organized university community of the past can survive in the modern world: first, the rapid development of scientific studies in universities, and secondly the vastly increased needs of the universities for financial strength. Most English universities, which hardly knew the old world and in which the scientific faculties predominate, have developed their institutions and procedures under the shadow of these strong influences; and even Oxford and Cambridge may well be beginning to wonder whether a certain tautness of administration which has irresistibly invaded their scientific departments may not have to spread farther and may not cause inevitably some quite decisive reconsideration of their central machinery of government.

Relations with Government

It is an inescapable fact that universities to-day are of very great interest to governments and must inevitably, so at least it appears in Great Britain, lean very heavily upon governments for their financial strength. It is not to be forgotten of course that something like half the universities of the United States of America are private institutions, and manage to maintain themselves without direct grants from public funds. It can also be assumed that very great efforts indeed will be made in the future by American industry and commerce to prevent the social services in general, and university education in particular, from becoming entirely dependent upon governments. But it seems clear that the day is now past when a similar effort could be successful on the European side of the Atlantic. Moreover, there is a very strong opinion in Great Britain that, on the record so far, many universities in the United States may well have paid a more damaging price for their indirect support from industrial agencies than British universities have needed to pay in return for their direct government grants. *Per contra*, many American university men who might themselves accept this judgment will emphasize the importance of the reservation about ‘the record so far’. History, they will say, will not be closing its ledgers from to-day; and the prospects of university freedoms in the future are still a matter for speculation.

If, however, the necessity for large-scale financial support of universities by government is accepted—and there can be little doubt that university opinion in the United Kingdom has completely accepted it—it follows that a university must have a policy which it can present and explain to government; and that it must also, in some way and at some level, be ready to give some kind of accounting of the use it has made of the public moneys which have been given to it. These two implications are quite inescapable. It may be assumed that British governments will continue to show a strong desire not to interfere with universities in any way which can possibly be avoided; but it can also be assumed that the same governments will not give increasing grants of money except in consideration of some general scheme or programme of work, and that they will require some guarantee that money received on such grants has been effectively devoted to fulfil the purposes for which it was given.

No considerable section of university opinion believes for a moment that it is practicable to avoid the logic of the application of these principles. In other words, university opinion has come to recognize that universities, if they are to have any secure prospect of being able to continue their work, must of their own action put themselves in a position to be able to deal with government on this basis. However desirable it might be, if it were possible, for university communities to maintain a free way of life without systematic organization or central control, this is simply not possible in the modern age; therefore the practical problem is to find a kind of organization and control which is in effect as little unfriendly as possible to a free and traditional university way of life. This is the urgent question before the universities themselves. On the other side there is a complementary question which faces the government: how to ensure that its method of assessing its financial grants, and its method of satisfying itself that the moneys it has given have been properly expended, shall not involve undesirable 'interference' with university freedoms, and so prevent the universities from being true to their proper calling and serving their proper purpose.

The answer to the first part of the government's question is, in Great Britain, the now justly famous University Grants Committee. This Committee is an informal committee advising the Chancellor of the Exchequer, who is the Minister responsible for government policy in relation to the universities; but it has acquired, as it was without doubt intended to acquire, a position of very great influence. Its continuity has been assured through changes of government for more than thirty-six years, and there has been no difficulty in appointing to it members held in the highest esteem in both the academic and the industrial worlds. It would be difficult for the government of the day to take any important decision of policy in regard to the universities without seeking its advice, or against its advice when this has been given. Even in the matter of over-all financial provision from public funds, though the decision about the size of the total grant for university purposes must inescapably remain with the Chancellor in consideration of the government's views of the general financial condition of the country, much weight will nevertheless be given by him, as it will also by parliament in debate, to the views of the University Grants Committee. The detailed distribution of the total grant decided upon by the Chancellor is in practical working entirely determined by the advice of the Committee. It has been said rightly that "the Committee is anomalous in the United Kingdom scene, but this is accepted as one of the merits of the system since it is felt that the special needs of the universities are not met by the more usual types of government machinery; the absence of formal statutory establishment has, in fact, strengthened the position of the Committee and facilitated its work".

Similarly, the University Grants Committee holds a position of very great influence indeed with the universities themselves. Each university has its Royal Charter and is an entirely independent and autonomous body; and it is well known that historically universities have not only been jealous of their independence in relation to governments and other outside bodies, but have also been in general unwilling to seem to derogate from their autonomy even so far as to have a common policy with other universities. On this basis the formation of a national policy for universities, presentable to the government by all the universities of the United Kingdom acting in agreement, seemed for a very long time quite unthinkable. As a formal act, performed through established formal machinery, it is perhaps still unthinkable. Yet in 1958 it is no exaggeration to say that in fact a national policy for universities, acceptable both to the government and to all the universities, has emerged and is being progressively put into practical effect; and it can be added that the means exist for adjusting this policy to circumstances, again with the agreement both of the government and of the universities, for modifying it, and even for changing it radically. Through the work of the University Grants Committee, with its informal status—acting in close touch with the Committee of Vice-Chancellors and Principals, another informal body—this transformation of the whole position affecting the relations of the universities, both between themselves and *vis-à-vis* the government, has been achieved in quite a small number of years and with very little public controversy. Within the universities there would without doubt be general agreement that the prospect of the continuance of this happy state of affairs for some time to come is good.

It may well be asked how this has all been done. If, as is undoubtedly the general belief, success has been largely due to the informal way in which the Committee works, both in relation to the Treasury and the Chancellor and in relation to the universities, it follows that no very exact answer can be given. Much is certainly due to the circumstances of the time. Since the Second World War universities not only very much matter to governments but are also very much seen to matter. The promotion of fundamental research, and the production and training of those who are to continue the research in the coming generations, are universally recognized in the present age to be matters of vital concern to the nation. Similarly from the other side of the argument, within the academic world itself, reluctantly but now quite freely, governments have now come to be seen to matter very much to universities. Probably no academic person thinks any longer that in Britain it will ever again be possible to maintain a university without very great assistance from public funds. Governments and universities are, in the modern world, necessary to one another, and it has become quite essential to both that they should manage to get on with one another.

Against this compelling background the very existence of the University Grants Committee has done a great deal to transform the whole university scene. Each university—coming to see for itself that if it hopes for public money it will itself have to present a case, and that the government for its part will have to see the cases of more than twenty universities moulded into some clear general scheme—has also recognized the immense advantages of having an understanding and competent University Grants Committee with which to deal, so far as its relations with the government are concerned. Each university has therefore come, more and more as time has gone on, to throw itself into the task of seeing its own problems from the angle of view of the University Grants Committee; that is to say, it has come to see itself as one of a group of more than twenty universities trying individually and as a whole to do what is in the national interest. Each university has of course still taken thought of its own history and its own individual, almost personal, calling; but it has brought itself to see itself not merely in isolation but also as one of a national group of universities, and the University Grants Committee has done everything possible to encourage it to do so.

This, from the point of view of the government, was a vital step; and it needed to be taken in the interests of the universities themselves. Successive governments were willing to accept the view that the universities present a special problem of their own, and have consented to the building up of a special and anomalous status for the University Grants Committee. They have agreed in effect that the formation of a national policy for universities, if it is to enable these institutions to maintain their true character as universities, must be decisively initiated and developed in a body which is instinct with the university tradition and angle of view. Similarly the University Grants Committee, in its turn also, has desired that national policy and programmes should, in discussion with the Committee of Vice-Chancellors and Principals, be constructed out of parts which have been designed and fabricated within the universities themselves. Each university has, in the course of experience, come to welcome this and to seek to do its best to play its part in the machinery thus established. The result is that just as the point of view of the individual university will be apt to be sympathetically understood in the University Grants Committee, so the problems which that Committee itself has to study and solve will be seen and understood by each university; and the study of the same facts will be apt to lead to the same conclusions in the council chambers of individual universities and in Belgrave Square. The margins of difference between the views of government and of the universities have thus been very greatly narrowed; and if a time comes when a change in national circumstances has led to a change in government policy about what it shall ask from universities, the relevant facts will already have become familiar to the universities themselves, through discussions with the Committee; and the universities may be expected to be already well on the road to being prepared to meet the government at least half-way in the solution of its national problems.

Inter-University Relations

If divergencies of interest and of point of view between the government and the universities as a whole have thus been tending to disappear, there only remain differences of interest among the universities themselves, mainly in regard to the distribution of the public moneys which form so overwhelmingly large a proportion of their revenues. Here again, the techniques which were dictated in principle by the very nature of universities have done much to minimize the problems of practical working. It is natural and right that the University Grants Committee should wish to keep itself well informed about what new developments each individual university would *wish* to undertake if it could find the necessary resources, and to be guided by this knowledge when it becomes necessary to plan the distribution of effort for some new development which is required on a national scale. No doubt the Committee has to consider not only which universities would like to undertake particular work, but also which are in the best position to perform it effectively and with economy. But in matters which concern universities the former consideration is always one of very great importance; and in any case the facts of the situation can be fairly and clearly studied by everyone concerned, so long as the discussions are informal, and the questions which pose themselves will more often than not be answered decisively by the facts. In practice there has been little sign of criticism or grumbling by universities in this regard. No doubt if a particular university felt it had a grievance it would be apt not to press it to the extent of looking awkward in any serious way—because of the clear recognition that the whole happy University Grants Committee dispensation rests upon the unspoken understanding that the Committee's advice will be accepted on the one side by the government and on the other side by the universities. But the signs are that the universities, because all the facts of the situation have become well known to them, have so far felt that there has been little cause for grumbling in any case.

It has already been said that the great and inevitable increase in the activities of the University Grants Committee has exercised notable effects on the development of the internal systems of government within universities themselves. For one thing, there has been a marked tendency for opinion inside universities not merely to tolerate but positively to call for smooth and efficient methods of policy-making and control; in other words, there is a greatly increased recognition that a great university in the modern age, for the benefit of its work in every part of its activities, really needs good policy-making and control. There is undoubtedly, not only among scientists but among university men of all kinds, a greatly diminished tendency towards nostalgia for the days when universities hardly needed any internal government at all. This fact has no doubt been increased by expansion and the consequent influx into teaching staffs of universities in the last ten years of men and women who have spent some part of their working lives in other kinds of employment; and it has also been hastened by a sense of the increased need to avoid the wasting of the time of academic persons on inefficient administration or unnecessary committee work. The teaching load is increasing, both because of multitudes of students and because of an increased recognition of the special value of good teaching at the university stage; and the morale of the research-minded members of the academic staffs is in the present generation very high. Few university men or women have nowadays much patience either with inefficient administration or with the missing of opportunities for their university through bad policy-making, and this represents a great change from the days when there was a natural state of war between the academic community and the administration. It has become natural to integrate teaching, research, administration and policy-making in a way which was in the past not felt necessary. These have together had to become a real and genuine unity. In particular, policy-making has had to be recognized not as an airy and speculative irrelevance, still less as a routine concern for the administration, but as a vital part of the main work of the university itself.

Structural Patterns

Different universities had to face the demands of the new situation from different starting points, their constitutions having been conceived and initially developed at different times and under different circumstances. London, for instance, had to be federal in structure, and had to keep colleges and other institutions, with marked characters of their own and with very different original purposes, sufficiently independent but successfully brigaded together in one university body. In questions of university policy and of finance the small and designedly efficient Court of the university has to behave to the various constituent bodies in much the same way as the University Grants Committee behaves to the national group of universities. It may be that the London constitution well fits the university to meet the demands of efficiency; the more intractable problems because of its size and the great variety of the institutions it must comprehend in so great a cultural centre, is perhaps to pursue the older values of looseness of organization, spontaneity and freedom. The University of Wales, with its four colleges in towns which are almost as inaccessible to one another as were the ancient Greek cities, and with individual characters almost as various as theirs, has problems, as it has had achievements, which are very much its own. The Scottish universities are different again. Very much older than the English, apart from Oxford and Cambridge, they from the beginning embodied quite different ideas. Broadly speaking, they freed themselves from the Middle Ages, in their teaching and their research, earlier than the two ancient universities; and traditionally they left the student to live his own private life in his own home or lodgings instead of requiring him to live inside the walls and play his part as a member of a residential college. The supreme governing body is generally the Court, which is both small and powerful. There is a Senatus Academicus, consisting of the professors and some other members of the academic staff, which has responsibility for instruction and discipline, the sole power of granting degrees, and in addition contributes one-third of the membership of the Court. There is also a very comprehensive General Council which meets twice a year. But the final control of university policy and of finance is without question, both formally and in practice, in the hands of the Court.

The modern universities in England, and the Queen's University of Belfast, had their constitutions, broadly speaking and no doubt with important variations, built to a pattern. Their charters gave them, with some differences of terminology, three majcr bodies: Court, Council, and Senate. Only the Senate is exclusively academic in membership; it consists of the professors and a varying number of non-professorial resident teachers. In general this body, of which the Vice-Chancellor is *ex officio* chairman, governs the academic affairs of the university and makes academic appointments, subject to confirmation by the Council, and in some matters by the Court. The Council has usually some thirty or forty members; generally most of them are appointed by the Court, some are nominated by local education authorities, and a restricted number by Senate or faculties from amongst the professoriate or other teaching staff. The Council is usually the effective governing body of the university; in regard to academic matters it normally confirms the actions of Senate, but in the control of finance and in policy-making it itself, with the help of its committees, plays a direct and active part in initiating, as well as in finally determining, the decisions of the university. Both the Chancellor, who does not attend, and the Vice-Chancellor, who does attend, are *ex-officio* members; and it meets sufficiently often to exercise continuous and effective authority. The third body, the Court, is a large body sometimes consisting of as many as three hundred or even four hundred members, who represent a very wide variety of interests in the region. It is, formally, the supreme governing body of the university. Though it normally meets only once or twice a year, and though most of the effective work of government is left to the Council, it must not be assumed that the Court can exercise no influence on the destinies of the university. The modern university needs to be firmly seated in the understanding and the affections of its region, and it is necessary to its health that the meetings of the Court should be more than a mere formality. The policies of Council and of Senate must be acceptable to Court, and it is generally thought desirable that they should be manifestly seen to be so acceptable. If Court should wish to interfere on any point, its wishes must be accepted; and there are usually at any moment at least one or two issues on which Council and Senate must take care to anticipate and take account of its known views. As with other similar large bodies, its influence on university policy is apt to be conservative, if only for the reason that it will accept only ideas to which rather a wide section of opinion has had time to become accustomed.

In strenuous times like the present, successful government in a modern English university depends in effect upon the relations between Council and Senate. Such difficulties as arise are in general not due to any differences of aims or of basic opinions as between the two bodies or between lay and academic members. Councils usually have a stable membership, and most of the laymen concerned have or acquire a considerable knowledge of university affairs. Laymen and academics by working together quickly acquire common views about the aims and purposes of university policy. Moreover, laymen in general come to accept fully that academic affairs are well left in the hands of Senate; and the great majority of members of Senate accept from experience that for a number of different reasons the part played by laymen on Council and its committees is of great value to the university. There is in fact to all intents and purposes complete agreement that, at least under present circumstances, the dual Council–Senate system of government is a good system for English universities, and everybody concerned has the strongest desire to see that it works. The practical difficulties are mainly technical, and are concerned with the design of procedures. "The key to the problem," it has been rightly said, "is the method of marrying academic insight and experience with financial management and policy. It does not solve this problem to allot the latter to one body and academic affairs to another, and to leave it at that. The policy to be made is the policy of an academic community; and on the other hand academic priorities and expedients cannot be effectively discussed without an eye to business affairs."

Generous as governments may wish to be in their support of university activities, any lively academic community will in future always be confronted by the problem of short resources, and the difficulties arising from this problem will inevitably affect almost every decision, however apparently academic, that each university has to make. Moreover, since the university wishes to maintain and encourage the present willingness of its main paymaster, the government, not to interfere in its internal affairs, it needs to see that its method of government will carry conviction, both for reasonable economy and for objective integrity, not only with the Auditor-General but also with the Treasury and with Parliament. The University Grants Committee can assist the universities to do this, and can marshal the case for their defence if they are attacked in the matter; but it cannot by its very nature take over the business and do it for them.

Different universities have developed their different ways of solving this problem, chiefly by interlocking and time-tabling their committees of Council and of Senate. It is not necessary to consider these in detail; but where they succeed, though of course much must always and increasingly depend upon the skilful contrivance of procedures, success mainly depends upon the simple fact that committee work together soon convinces academics and laymen that, when in common devotion to their university they get down to a particular piece of work, their respective skills complement one another. Industrialists soon appreciate that under modern conditions the head of a great academic department has of necessity considerable skill at affairs; and professors very soon see that, though he has acquired his experience and expertise in other circumstances, the first-class layman can soon apply his insight and ingenuity to the special circumstances of university work. For this basic reason, many universities probably consider that the structures of their systems of internal government are basically sound and have for the most part stood them in very good stead through a decade and a half of very difficult policy-making and administrative adjustment since the last war. It may be added that further developments will undoubtedly continue to come, as they are needed. The signs are that they will come quite acceptably.

CHARLES MORRIS.

CHAPTER THREE

The Relation of Teacher Training Colleges of England to the Universities

Is the English training college an institution of higher learning? Such a question a few decades ago would have provoked a very derisive reply. The English conception derived from the idea of a university has indicated a self-governing institution devoted to the study and advancement of learning, with a high degree of freedom for the institution in the subjects which should be taught or studied, including complete freedom in teaching methods and autonomy in holding examinations.

By contrast, the training colleges in the nineteenth century provided apprentice teachers with a modest quantity of secondary education and a thorough drilling in the use of prescribed methods of instruction for elementary schools. A department of government (called the Board of Education after 1899) approved subject syllabuses, organized the curriculum, and was responsible for the final examination of the student teacher. No one would wish to disparage the professional zeal of many of the teachers so trained, and as opportunities elsewhere for further education were severely limited the intellectual calibre of these teachers was higher than the courses provided by the colleges suggest. The period of centralized direction by a government department played its part in establishing professional and academic standards, as it might well do in any 'under-developed' country; but the abiding difficulty is that institutions in England are very conscious of their traditions, and it will take time and a real effort of will to live down this early history of training colleges.

By the Education Act of 1902, local education authorities were established and were empowered to maintain training colleges, thus breaking the virtual monopoly by religious bodies of the training of elementary school teachers, and at the same time the development of the secondary grammar school provided by public authorities made it possible to insist on a complete secondary schooling for entrants to training colleges. The university departments of education, started in the 1890's, gave professional training to graduates who wished to teach in these secondary grammar schools and under the leadership of some notable professors of education began the long task of establishing education as a worthy study in its own right.

In 1926, the Board of Education handed over the responsibility for the final examination of students in training colleges to what were called Training College Joint Examination Boards or Delegacies, regional federations in which training colleges were associated with a near-by university or university college for the purpose of setting and marking the Teacher's Certificate Examination. Inevitably, this co-operation between university and training college lecturers went further in the direction of control of academic policy, because examination discussions involved consideration of syllabuses and schemes of work; but final approval of syllabuses and courses still rested with the Board of Education, which also continued through its inspectors to examine the practical teaching of students in schools. University departments of education took no part in the work of the Joint Boards, so the separation between training for teaching in elementary or grammar schools continued.

Re-organization under the McNair Proposals

The next major change in the status of training colleges occurred after the 1944 Education Act, which provided for secondary education for all children after the primary school stage, that is to say, after the age of 11. This outdated the separatism in the training of teachers—graduates with professional courses from university departments of education for secondary grammar schools and non-graduates from training colleges for elementary schools—which had never been prescribed by law but had been the normal consequence of taking two different training courses.[1] The way was open for the acceptance of one profession in which members were trained to teach in various types of schools according to academic qualifications and interests (as well as the needs for service in different types of schools), based upon one basic salary scale for all teachers in maintained schools.

A committee chaired by Sir Arnold McNair was set up in 1942 to report to the Government on the supply and recruitment of teachers, and this Committee Report, known as the *McNair Report*, recommended that the eighty training colleges and some twenty university departments then existing should be brought together as organic federations sponsored by the various universities.

"We do not believe, however, that any system for the training of teachers can be effective unless those who shoulder the responsibilities derive their authority from a source which, because of its recognized standards and its standing in the educational world, commands the respect of all the partners concerned and which, because of its established independence, is powerful enough to resist the encroachments of centralization."[2]

---

[1] There was nothing to prevent graduate teachers entering elementary schools before 1944, and many graduates did so when other posts were difficult to secure, or when imbued with enthusiasm for elementary schools even though salaries in these schools were lower.

Further, both degree courses and post-graduate professional courses could be given in some training colleges.

This majority opinion on the *McNair Report* was adopted. Seventeen Area Training Organizations, more commonly called Institutes of Education, were established in England and Wales by the various universities, except at Cambridge where the university declined the responsibility. This means that all the institutions in a geographical area responsible for the training of teachers, both training colleges and university departments of education, work in an institute under the authority of the university for the direction and implementation of academic policy.[3] The status of qualified teacher, which is necessary for teaching in a school maintained by public authorities and can be obtained by success in the Teacher's Certificate Examination or the Post-graduate Certificate in Education, is granted by the Ministry of Education on the recommendation of the Institute of Education.

Academic Control

Can it now be said that the training college has realized its position as an institution of higher learning within the framework of the Institute of Education?

To be accepted as a constituent college of an institute, a training college must satisfy the senate of the university on such matters as the constitution of its governing body; suitability of buildings and equipment; qualifications, remunerations, and conditions of service of members of staff; arrangements to enable the academic staff to formulate a corporate policy on academic matters and to take part in the management of the institution; the standard of instruction and research; and entry qualifications of students—to quote from the regulations of the University of London Institute of Education. These matters are taken up afresh every five years in London by a scheme of visitations of constituent colleges. The visitors are a small party of university and training college members, appointed by the senate, and on the day of the visit, briefed by preliminary information supplied by the college on the subjects listed above, the visitors hold discussions with the principal of the college, members of staff altogether as an academic board, and the students as represented by their union or society. The visitors prepare a written report on the college, which is communicated by the senate of the university to the governing body of the college, but the senate has no executive authority to direct a governing body to carry out any recommendations. As a last resort, presumably the university could decide that any college which wilfully refused to carry out a vital recommendation should be cast out from the society of the institute, but this is the kind of difficulty which is solved by never allowing it to arise.

---

[2] *Teachers and Youth Leaders.* Report of the Committee (Chairman, Sir Arnold McNair) (H.M.S.O., May 1944), p. 50.

[3] With some exceptions listed in Ministry of Education Circular 284. It should also be noted that persons who hold approved university degrees are permitted by Ministry regulations to qualify by probationary service in schools without professional training. This is said to be a temporary concession to meet the shortage of graduate teachers, particularly teachers of mathematics and science. Why not make professional training compulsory and then suspend regulations for holders of specified degrees in times of emergency?

As a further safeguard of academic standing, the status and title of 'Lecturer in the Institute of Education' is conferred by the senate of the university on persons who hold permanent and full-time appointments in training colleges and departments of education. Appointments of members of staff in training colleges are made by the governing body of the college concerned, not by the Institute of Education; but this status is essential if the member of staff is to serve on the institute committees responsible for the academic work of all the colleges. Written applications are considered by the special advisory board which reports to the council of the institute, and particular attention is paid to the academic qualifications and professional experience of applicants. Again, there is scope for difficulty with governing bodies, but in practice the standards are well known and commend themselves to the governing bodies, so it is rare for a person appointed to a training college staff to meet this barrier later.

Turning to the internal organization of institutes, and still quoting arrangements made at London, which are typical in spirit if not in administrative detail of all institutes of education, the aim is academic self-government. The lecturers in training colleges and departments of education form boards of studies in their particular subjects. All the lecturers in history, for example, meet regularly as a standing sub-committee in history, which is responsible for first approval of college syllabuses in history and for proposing arrangements for the examination. Nominations for the examining board are made by this sub-committee and include training college lecturers nominated as internal examiners, with external examiners usually nominated from among the history professors and lecturers of the university. These external examiners also sit *ex officio* on the standing sub-committee, thereby adding a vital third academic element to the strength of the institute, namely university members who are not members of staff of departments of education. A Ministry inspector sits on the committee as an observer.

The sub-committee in history discusses anything connected with the study of history in training colleges or the teaching of history, and reports to the academic board of the institute, the body particularly responsible for general academic policy, which consists of professors and readers in education of the university and members (who form a numeral majority) elected by all training college and department of education lecturers. The final immediate authority is the council of the institute, which includes among others representatives of the university central authority, the teachers' organizations, voluntary bodies concerned with the training of teachers, and local education authorities. There are also two committees parallel to the academic board, the conference of local education authorities and a committee of principals (the principal of each training college and head of each department of education), which offer advice to the academic board and council. The final authority is the senate of the university, but beyond the safeguarding of some broad principles of policy the senate is likely to leave practical control of affairs in the hands of the institute and maintain a watching brief.

Such an organization is cumbersome and is not offered as an easy export. It depends very much on a willingness to reach agreement by discussion. Except at council level, members serving on training college staffs are everywhere likely to be the numerical majority on any committee, and it is worth recording in this connexion that in England there is not the gulf in academic qualifications and personal ability between these members and members of university staffs which sometimes exists in other countries.

The organization of an institute of education therefore offers every full-time lecturer in a training college or department of education an opportunity to put his or her views before colleagues, and register at an appropriate level his or her decision on academic policy. In this sense, the institute of education is a self-governing body for the control of academic policy and that policy is determined by the academic members of staff.

Obstacles to Full Autonomy and Status

If we dismiss all the good work carried out under these circumstances, which is very uncharitable to those concerned, what are the remaining obstacles to considering training colleges as institutions of higher learning in this most important field of academic self-government through institutes of education?

The university tends to look on the institute as its adopted child; its own child is the university department of education, and even this department with professors of education can be regarded as a somewhat unnatural offspring by those who have only recently begun to regard a professor of geography as academically respectable. For the very reasons advanced by the *McNair Report* on the status derived from a university connexion, and prompted by the insecurity of being a late arrival in the family, the department of education in turn shows little enthusiasm for putting its academic policy—the professional training of graduates and preparation for higher degrees in education—within the control of the institute. Separate boards of studies, limited to members of staff who are recognized teachers of the university, are maintained. Without going into a tangle of constitutional problems, this may be quite defensible at this stage, but it has raised criticism. Some institutes have been notably more successful than others in dealing with the problem.

On the other side, the training colleges are maintained by their own authorities, the voluntary bodies or local education authorities, which work usually by delegating powers to a governing body appointed by them for a college. Financial support is obtained by fees paid on a student-number basis and building grants paid as a percentage grant of capital expenditure by the Ministry of Education. For LEA colleges there is a central fund, subsidized by all local authorities in proportion to size of school population and augmented by Ministry grants, on which the LEA administering a college draws for support. Consequently, negotiations for buildings are vested with the voluntary bodies, the LEA's, and the Ministry. The Ministry also controls staffing, by approving staff establishments.

In these circumstances, to say that the institute of education has charge of academic policy, when arrangements for buildings and staff establishments so vital for the implementation of that policy are negotiated elsewhere, is a little naïve. Moreover, contrary to what was thought in some circles to be the original bargain, the Ministry continues to exercise the right of full inspection of training colleges (the Ministry Inspectorate has no right of entry to university departments), and bearing in mind the training college tradition already outlined, cynics have sometimes declared " *plus ça change, plus c'est la même chose* ".

Central Organization for Institutes

The university institutes of education have little common policy. There is a standing conference of all institutes, which has not been very active; a newly-formed committee of directors of institutes; and a sub-committee representative of institutes and minuted by Ministry officers which considers further courses of professional training. Such weak liaison leaves the Ministry of Education as the only body capable of looking at academic policy on a national basis. These difficulties arise particularly in moments of urgency, such as the present need to increase training college places.[4]

The contrast in these respects is drawn with the English university or university college. State aid is given to these institutions through the University Grants Committee (an independent academic body) and then dispensed on the basis of five-yearly estimates and grants to the separate universities and university colleges. Thus the university institution makes plans for building and staffing in terms of a five-year scheme for academic development, is given a grant as adequate as is available, and then becomes responsible for carrying out its own programme.

As there is already a central training college fund for local education authorities, and as voluntary colleges are promoted for the most part by a few religious societies—Catholic, Church of England, Methodist—one future solution might be to form a training college grants committee, to receive all state subsidies and allocate them in the style of the University Grants Committee. Many LEA's have played a magnificent part in the development of teacher training and these, ironically enough, will probably be more easily persuaded of the wisdom of such a development; the greatest difficulty might be with one or two small local authorities where occasionally the councillors bask in the prestige of having ' their own college ' at no direct cost to the rates. The voluntary bodies, some of which have recently moved from the task of maintaining voluntary schools to concentrate on the training of teachers, present a particular difficulty as long as they are asked to provide such a large part of the capital investments in buildings. There is no reason, however, why both LEA's and voluntary bodies should not exercise their perfectly proper interests in teacher training through representation, increased if necessary, in the institutes of education.

Entrance to Training Colleges and Academic Standards

What about the quality of students entering English training colleges? The general background of the students is the same as that of students entering a university, namely, a course over about seven or eight years in a secondary grammar school. The present minimum academic requirements for entry to a training college are as follows:

---

[4] The institute is, for example, liable to find itself by-passed in control of academic policy by decisions on buildings taken privately with governing bodies, or by expansion planned for one area, rather than another, on grounds not explained, much less discussed or decided within the institutes.

> A General Certificate (or Certificates) of Education denoting passes in:
>
> (*a*) five subjects at the Ordinary level; or
> (*b*) three subjects at the Ordinary level and one other subject at the Advanced level: or
> (*c*) two subjects at the Ordinary level and two other subjects at the Advanced level; or
> (*d*) three subjects at the Advanced level, provided that there is evidence that other courses have been studied beyond the minimum age for entry to the examination.

Ordinary level is the standard of attainment roughly suitable for a person who has attended a secondary grammar school for five years. Advanced-level examinations are usually taken by pupils at the age of 18 or 19 in the grammar school, after having taken not more than three or four main subjects at this level during the last two or three years of the school course.

Specific subjects are not laid down in the entry requirements for training colleges, although there is nothing to prevent a college asking for any particular subject and, in fact, the possession of minimum qualifications does not guarantee entry to a college. On the contrary, there are at the moment places in training colleges over the whole country for only about 60 per cent of the applicants who apply, and to the 'best' colleges there may be five or six times as many applications as can be accepted. A student from any area of Great Britain may apply to any suitable college and, upon leaving college, may accept employment in any part of England and Wales—that is to say, recruitment is on a national basis, with a clearing-house system organized by the Association of Teachers Colleges and Departments of Education, so that applications rejected by a candidate's college of first choice are sent on to a college of second choice, etc. The entry is therefore selective (having changed considerably in the last ten years), and this seems likely to continue despite the need to increase the number of training college places to meet deficiences caused by the introduction of a three-year course in 1960 and the increased wastage in the profession.

The minimum age for entry to college is 18, and in the London colleges three-quarters of the men students and over half of the women students possess one or more subjects at Advanced level in their entry qualifications. Would it be possible to demand at least one Advanced-level subject in G.C.E. entry requirements, and thus approach the university entrance standard, where two or three subjects at this level are compulsory?

There is nothing wildly impracticable in this suggestion, bearing in mind that present statistics are no indication of how many more applicants might obtain Advanced-level qualifications if this were to become a statutory requirement.[5] It would encourage applicants to use to the maximum the teaching resources available in grammar schools rather than mark time in the last year or two at school. On the other hand, it might increase the specialization in these years. The hope is that candidates will follow a broad course, and this is particularly urged by training college lecturers accepting students for teaching in primary schools.

The majority of students at training colleges are preparing to teach in the primary school, for children from the age of 5 to 11, and it is argued that there are many other factors in selecting students—suitable personality, aesthetic interests, practical abilities, and so on—beyond what are suitably registered in a formal examination. Furthermore, if an applicant is so well qualified academically, the way is open to the teaching profession by taking a degree in a three-year course at a university, which is particularly appropriate for students intending to teach in secondary schools.

This argument, pushed to its logical conclusion, tends to make a distinction between academic entry-requirements necessary for students intending to teach in primary schools and those preparing for secondary school work—however much such a distinction as a declared policy embodied in training college entry regulations would be rejected, because it would run counter to the 'unity' of the profession and would destroy the unrestricted mobility in employment given by Q.T. states. All teachers for secondary schools would tend to take graduate qualifications, which would be the first step to the all-graduate profession favoured in certain quarters but which would, in present circumstances, remove training for secondary schools from the training colleges to the university departments of education.

It has aways seemed to the writer that the emotional fervour supporting suitable personality rather than academic qualifications for entry to training colleges is a little misplaced. Suitable personality is obviously essential, so essential that it should be taken for granted as necessary for all entrants to colleges, but listening to some of the discussions is apt to lead to the conclusion that a pass in an Advanced-level subject is incompatible with a well-balanced personality.

---

[5] Qualifications for admission are laid down by the Ministry of Education on a national basis for England and Wales, after advice from the professional opinion embodied in the National Advisory Council on the Training and Supply of Teachers.

A pass in at least one Advanced-level subject should be made an entry requirement for training colleges as soon as possible.

Degree Courses

What is the standard of instruction in training college courses? How far does it accord with standards in other institutions of higher learning? This is the most difficult matter to assess.

Increased emphasis is now being placed on lecturers in training colleges maintaining their private studies for the advancement of learning, and institutes help by giving free admission to advanced courses in education at the university. The training college, with its intimate relationship with schools, is particularly well situated for investigational work with children, and the teaching in the colleges gains immensely in freshness and relevance by such studies. Many institutes publish journals which act as a forum for publication of this work. It is necessary to adjust staff–student ratios in some colleges to give lecturers the necessary time.

So far, the normal course in a training college has been two years, three for students in domestic science or physical education or for students in Froebel colleges, and it is unanimously agreed that such a course is too short and too hurried. In 1960, a three-year course will be introduced as normal for all colleges.[6] This will make it more possible to give adequate tuition and guidance in independent study in the four main administrative aspects of the college curriculum, special subjects studied for the personal development of the student as far as the student can progress in academic study, curriculum subjects designed to cater more for the re-orientation of subject-matter looked at afresh with the age-range of the children to be taught in view, the study of the theory of education and practical teaching. The balance of the college curriculum will be adjusted to the needs of the schools, reflecting the age-ranges of children and manner of arranging the teaching. Thus, students preparing for secondary schools might take two or three special subjects, with concurrent courses in teaching methods, a very limited number of curriculum courses, in addition to theory of education and practical teaching; whereas the student preparing to teach in infant schools might take only one special subject and a wide range of curriculum subjects, in addition to theory of education and practical teaching.

The special subject invites comparison with subjects studied in a university course, and there is no reason why in depth of study it should not be ranked as equivalent to one of the three or four subjects usually taken in a general degree course. Would this equivalence be formally recognized by the universities? The *McNair Report* suggested that under certain conditions " courses taken in an affiliated training institution . . . should be accepted as satisfying part of the requirements of a degree course ".

---

[6] See Ministry of Education pamphlet, No. 34, *The Training of Teachers*; N.A.C.T.S.T. Fifth Report, *Three Year Training for Teachers* (1956); Sixth Report, *Scope and Content of the Three Year Course of Teacher Training* (1957); A.T.C.D.E. *Journal*, "Education for Teaching", May 1954.

Universities in England are notoriously chary of recognizing equivalent or part qualifications, particularly as the university course is conceived as a unity, not as credits that can be congregated to form a degree course.[7] Education, it should be emphasized, is still not thought to be a fit subject for study in a first degree course. This provokes many questions, centring on why it is impossible in England to take a B.Ed. degree.

In these circumstances, the main argument in training colleges is whether such equivalence—whether it could be obtained or not—is the true aim of a training college course. It is argued that with present freedom given through the institutes of education the courses in special subjects can be planned to suit lecturers' interests, students' ability and interests, and sometimes the particular environment of the college. Investigations and options particularly suitable for those who are going to teach can be included, instead of the strait-laced academic work of degree course, where these features are often available later only in higher degree work. It is fair to say that lecturers from men's training colleges, with secondary schools more in mind, support this view decidedly less enthusiastically than lecturers from women's colleges.

Some other possibilities have been little discussed, for example, the organization of the college course as a liberal arts course for two years, followed by a professional course. This will receive no support in general in the colleges, where stress is laid on the essential unity of the three years and the need for concurrent academic studies and professional training.

It is too early to crystallize this discussion, but it seems likely that the academic standards set for the three-year course will be put forward on their own merits. The natural habit in England is to let these matters sort themselves out in the market of free employment of teachers, as possession of a university degree or Teacher's Certificate is legally equally valid for teaching in any maintained school.

But the clear intention of the training colleges in the three-year course is to consolidate the standard of academic study, particularly in the special subjects and education, appropriate to their standing as institutions of higher learning. Pressure for a disproportionate extension of teaching practice, for example, is being resisted: this might be more properly tackled in the probationary first year of teaching.

---

[7] This difficulty may be side-tracked by instituting diplomas, awarded at various levels for studies in specific fields.

The Future

Summing up this very brief survey, and without minimizing present inadequacies or the great strides ahead necessary in the future, there are grounds for satisfaction but not for complacency about the present status and style of training colleges in England. They have now a degree of self-government in academic policy, the possibility of recruiting students of improving academic and personal qualities, and with the advent of the three-year course an increased opportunity to maintain standards of teaching. Co-operation, instead of central dictation, exacts its price. There are still training colleges and institutes of education lagging a long way behind the rest.

The new ethos of the training college may be best described in the words of the late Dr. G. B. Jeffery, sometime Director of the University of London Institute of Education:

> It is a community held together by a common purpose in the pursuit of learning. It has within it an ordered seniority of masters, fellows, and students living in mutual respect for the duties and responsibilities of each for the welfare of the whole. It is the kind of community that gives the greatest opportunity for academic freedom, and this spirit dominates all relations within it, whether of the head to the staff, or the staff to the students. It may or may not enlist the support of outside bodies or persons in its finance or government but, in its own internal academic life, it is a free society in which each, according to his seniority, has a voice in determining the affairs of the community

He was the first to insist, however, that this new conception of a training college would be won not by a feverish clamour for rights and privileges, but by firm acceptance of duties and execution of responsibilities already undertaken.

WILLIS DIXON.

CHAPTER FOUR

The Finance of Higher Education in the United Kingdom

THERE are a number of ways in which Institutions of Higher Education are financed in the United Kingdom. Four such ways may be distinguished—fees, endowments (including gifts), local grants, and government grants. There are also different ways in which Institutions of Higher Education may be conducted—they can be completely controlled (as are research institutes and staff colleges run by firms and government departments), completely free (as are universities), half-slave—half-free (as are training colleges and technical colleges); and in this respect their status depends very little upon the actual sources of finance, but rather upon their constitutions.

In this article I shall define higher education bodies as those fulfilling either the teaching or the research functions of universities; I shall deal briefly with the main methods of financing these institutions. I shall then discuss the relationship of the methods of finance first to autonomy of teaching and research (broadly, the issue of academic freedom), and then to the selection of subjects and faculties for development, and, finally, to the selection of students. This discussion raises a number of general points. How far, for instance, is it true that the great independence of the universities under the University Grants Committee (U.G.C.) has led to the avoidance by them of tasks necessary to the public interest, which have therefore been undertaken by other bodies intrinsically less suitable—and less independent? Is the time ripe for a reconsideration of what is the proper relationship of all institutions of a 'university type' (whether they are called universities or not) to the state and community at large, and to each other?

In the conclusion, it is suggestion that the U.G.C. has been extremely successful, but at the cost of leaving other institutions a little behind on the road to an adequate relationship with their financial backers. It is suggested that a new body, similar to U.G.C., might be established to finance the other institutions. The reason for this suggestion is that the U.G.C. has been good at the very things it has allegedly never done. In times of expansion it has interfered successfully in academic matters and in consequence it has raised standards and guided development with tremendous success. The reason for this, it is clear, is that its members and its secretaries have been people of high ability and constructive liberal sentiments. Long may they remain so.

Methods of Finance

(*a*) *Universities*

In *The Costs of Education* [1] I have made estimates of the total expenditure and receipts of British Universities (including the colleges of Oxford and Cambridge, and Queen's University, Belfast). The following table shows the situation for three years since 1920. (It is of financial years.)

TABLE I

UNIVERSITIES' INCOME, U.K., 1920–55 (£m.)

Year ended March 31st	(*a*) *Endowments*	(*b*) *Parliamentary Grants*	(*c*) *LEA Grants*	(*d*) *Fees*	(*e*) *Other*	*Total Receipts*
1920 . .	1·2	1·0	0·2	1·4	0·4	4·2
1935 . .	1·8	2·1	0·6	2·5	1·0	8·0
1955 . .	3·0	21·9	1·1	4·7	4·3	35·1

Source: Table 32, *The Costs of Education*

From this table certain features are clear. First, in thirty-five years, total receipts have multiplied over eight times (in real terms, by five times). At the same time the receipts from the government have multiplied nearly twenty-two times, and the receipts 'for services rendered' have multiplied by nearly eleven times. In 1920, government and local authorities provided directly only two-sevenths of the universities' incomes; in 1955 they provide over two-thirds. This is a significant change.

Next, the 'autonomous' sources of finance have correspondingly diminished in importance. Endowments have fallen from over a quarter to only just over a twelfth of total income, and fees have fallen from one-third to less than one-fifth. These fees, too, to the extent of nearly three-quarters, were paid by the government and local authorities.

The main mechanism for this change in the relative importance of the methods of payment has been the University Grants Committee. This body was established in 1919 to allocate the money voted to the universities by Parliament.[2] The money is paid to it from the Consolidated Fund and it makes representations to, and acts on behalf of, the Treasury. It is composed largely of academic persons, appointed by the Chancellor of the Exchequer, and is supported by a staff of professional civil servants. Its Reports are laid before Parliament but are rarely debated. Normally, quinquennial grants are made to the universities, but special supplementation for a particular project or for an unexpected general change in costs or numbers of students may be given. Usually, too, grants are made for general university purposes, but a number—especially in the early stages of the development of a new subject—are 'ear-marked' for that purpose.

---

[1] Allen & Unwin, 1958.

[2] The colleges of Oxford and Cambridge and Queen's University, Belfast, are excluded from its purview.

The way that the money has been spent has changed considerably since 1920.[3] If expenditure in actual money terms is taken, it rose from £4·4m. in 1920, to £7·4m. in 1935, and to £33·9m. in 1955. (The difference between the figures of the money received and the figures of the money spent represent changes in the reserves of the universities.) It is more convenient, however, to take expenditure in real terms, making allowance, that is, for changes in prices. If we take expenditure at 1948 prices, it rose from £5·2m. in 1920 to £10·3m. in 1935, and then to £25·4m. in 1955. This is a fivefold rise in thirty-five years, and a rise of two and a half times from 1935. If expenditure is divided into major categories it is found that the major increase in the period between the wars was not in salaries but in departmental and building maintenance. This represented a substantial effort to improve the physical equipment of the universities, especially in buildings. From the end of the war onwards, however, the major proportionate increase in expenditure has been in 'departmental maintenance', which represents—for the most part—the cost of the growing science departments. Thus, while salaries rose from 1935 to 1955 from £5·1m. to £10·8m. (at 1948 prices), and the maintenance of buildings from £2·1m. to £3·3m., 'departmental maintenance' rose from £1·2m. to £5·7m. It is clear that at constant prices a major element in the extra costs of universities since the war is attributable to the growing cost per student of scientific education and research. There is every reason in the world to expect this figure to rise rather than to fall.

(b) *Teacher Training Colleges*

Expenditure on training colleges in the United Kingdom has risen as shown in Table II on page 292.

Expenditure on training colleges in the United Kingdom in money terms rose between 1920 and 1955 by fifteen times, or by over three and a half times in real terms. Much the greater part of this expansion has taken place since the end of the war, especially in the Emergency

---

[3] All this section is based on Table 33, *The Costs of Education.*

TABLE II

TRAINING OF TEACHERS IN THE U.K., 1920–55 (£m.)

Year ended March 31st	(*a*) *Expenditure in Current Terms*	(*b*) *In Real Terms* 1948 = 100	(*c*) *Receipts from Public Bodies*	(*d*) *Other Sources*
1920 . .	0·4	(0·8)	0·3	0·1
1935 . .	0·5	(1·0)	0·4	0·1
1955 . .	6·0	(3·0)	5·7	0·3

Sources: Tables 25, 26, 30, and 31, *The Costs of Education*

Training Scheme. The yield of fees and endowments has fallen from a quarter of total receipts to less than one-twentieth. Of the remainder, over 60 per cent is found by the central government and the provincial government of Northern Ireland, and the remainder falls on the rates.

Following the rapid increase in expenditure immediately after the war there has been a fairly substantial fall in expenditure measured in real terms; probably between 1950 and 1955 there was about a 20 per cent fall in the expenditure on teacher training. This fall has only very recently been reversed. The major part of the fall was in the salaries of lecturers at the colleges. Thus, the ending of the Emergency Training Scheme represented a real body-blow to teacher training, actually leading to reductions in staff.

(c) *Higher Technical Education*

TABLE III

EXPENDITURE ON HIGHER TECHNICAL EDUCATION IN THE U.K., 1920–55 (£m.)

Year ended March 31st	*Expenditure £m.*
1920 . .	3·0
1935 . .	3·0
1955 . .	20·0

Source: Tables 18, 30, and 31, and pp. 103–6, *The Costs of Education*

It is impossible to make accurate estimates of the cost of higher technical education in the United Kingdom; these rough estimates are derived from a study of further education in the four countries. Broadly, the figures are intended to show full-time education after about the age of 17 taking place in technical colleges, art schools, and polytechnics. This is a conservative estimate of higher education, because it excludes a number of 'sandwich courses' and much evening work which is of degree or Higher National Certificate standard.

(d) *The Total*

One important conclusion may be drawn from a table of the total expenditure on higher education in the United Kingdom, adding together the totals given in the three preceding tables.

TABLE IV

TOTAL EXPENDITURE ON HIGHER EDUCATION IN THE U.K., 1920–55 (£m.) EXCLUDING CAPITAL EXPENDITURE

Year ended March 31st	(*a*) *Total*	(*b*) *Universities*	(*b*) *on a percentage of* (*a*)
1920 . .	7·6	4·2	55
1935 . .	11·5	8·0	69
1955 . .	61·1	35·1	57

Source: Tables I, II, and III

From Table IV it can be seen that university expenditure, even on the most generous estimate, is less than three-fifths of the total United Kingdom expenditure on higher education. The influence of the University Grants Committee is therefore excluded from over two-fifths of expenditure. Correspondingly, the support of local authorities amounts to about one-fifth of expenditure, and of the state to nearly seven-tenths of the total. This is a matter not often recognized by those who discuss higher education in general terms.

If the numbers of full-time teachers and students are taken, the University Grants Committee influences only just over two-thirds (or possibly fewer) of the total; that is to say, about a third of the students and rather less of the staff in institutions of higher learning in the United Kingdom are working directly under the auspices of local authorities. To this should be added the novitiates in seminaries, the executives learning to be unfree in industrial courses, the officers of the armed forces going to staff colleges, the medical education given to doctors and nurses by the National Health Service. Even on the narrow definition adopted here, the University Grants Committee has conquered only part of the territory that might be considered to be within its scope, and has even fallen back in the years since 1935.

This is a situation that is being changed at present by the development of a programme of higher technology in some local authority colleges which are being given considerable academic autonomy, based on a 75 per cent government grant—approximating financially, that is, to the position of universities under the University Grants Committee. There is one important difference, however, in the methods of finance. The University Grants Committee makes its allocations on a five-yearly basis, and the money is paid to it directly from the Consolidated Fund; the Ministry of Education is the paying department for the colleges of advanced technology, and the money is paid to the local authorities for disbursement. Although there is a long-term plan for expenditure, money is in fact voted annually by the local councils and by Parliament on the Ministry of Education estimates. This difference from the methods used to finance universities is important for several reasons. For one thing, the time-period for planning is in practice shorter under local authorities and the Ministry of Education. Next, the Ministry has narrower objectives than has the University Grants Committee. The Ministry seeks, for instance, to bring the output of technologists and applied scientists into line with the general needs of society and the particular purposes of the public education system, while the University Grants Committee is concerned to do this only in a general way.

The methods of control employed by the local authorities may be contrasted, too, with the methods employed by the universities. In the one case, it is the locally elected councillors, while in the other it is the University teachers who make appointments. This is a difference which will be dwelt on at length later. Another difference is in the conditions of work. In general, the teaching terms are longer under local authorities; the student teacher ratio is worse; the hours of teaching are longer; the facilities for research (especially libraries) are more rudimentary; the students are sometimes less able; in general salaries are lower; superannuation terms are noticeably less favourable—all these add up to substantial disabilities for the staffs of non-university institutions of all kinds. In all, the differences between universities and local authority colleges amount to a considerable difference in status, and this difference in status is related to the different methods of finance and control—just as the methods of finance and control are related to the high status of universities compared with other institutions.

The combination of independence and better conditions which I summarily call 'status' leads, however, to an easy but not necessarily inevitable conclusion. This is that the method of payment through the University Grants Committee gives status to an institution and is therefore to be encouraged to develop for all bodies giving higher education. In one sense this is true. The more the lecturers in training colleges, for example, can be given self-government, the better it will be for them and their students, and the more able people will be attracted to their work. 'Status' is to be encouraged. In another sense, however, this is a misleading conclusion to reach. It is not necessarily self-evident that a partial divorce from the whole public educational structure is desirable for all institutions of higher learning. There may well be a conflict, for instance, between the pursuit of knowledge for its own sake and the pursuit of knowledge actually needed by society at the time. In the present quinquennium, for instance, it is by no means self-evident that the creation of new chairs of theology in the University of London is a pressing social need, though it may well accord with striking academic advances in that subject.

In the next section, therefore, I want to examine the means employed by the University Grants Committee, the universities, the Ministry of Education (and other government departments), local authorities, and industry to create new posts and to extend research facilities.

Initiating and Supporting New Development

There are four ways in which a new subject—or an extension of an old one—can be introduced into a university. First, an old subject can be changed—informally, at first, and then formally. This process is usually seen in personal terms rather than as a recognized process of changing a subject, but it occurs frequently. At Oxford, for instance, the changing content of 'Greats' (Final honours Examination in Classics) led to the development of the major part of two at least of the three subjects in P.P.E. (Philosophy, Politics and Economics) long before the formal initiation of the new school. Similarly, sociology and psychology are in fact taught inside P.P.E. by individuals who are not teaching a sociology paper as such. Broadly, it is a tradition that a don in an established subject interests himself in a new aspect of learning and eventually he and his pupils come to teach it for a paper in Schools.

That is one way to start a subject. A second way is for a man, a firm, or a foundation to give a capital sum or a recurrent grant to finance some new development. Lord Nuffield's gifts to medicine and the social sciences, and the chairs of science endowed by industry, are models of this kind of grant. There are numerous government sources of income, too, such as the Department of Scientific and Industrial Research (under the aegis of the Lord President of the Council), the Ministry of Agriculture, Fisheries, and Food, and the Defence departments. Often, of course, the intentions of the donors are changed by the recipients—it would be invidious to cite instances. This kind of expansion is linked closely to the needs of the donors or of the recipients.

A third way is for the University Grants Committee to decide that a particular subject, or a particular university, deserves more resources. A case in point is the immediate post-war expansion of the social sciences; so is the expansion of technology in the quinquennium beginning in 1957; and the expansion of the universities in the north of England in the same quinquennium.

This kind of expansion is the most important. It is also the most carefully planned in terms of likely numbers of students, availability of staff and buildings, the balance of subjects, the proper rate of growth of the university, and the needs of the public for graduates and research results. Of particular importance, perhaps, is the University Grants Committee's unobtrusive support of neglected subjects, and subjects of general, but not particular, relevance to the needs of an educated society.

Lastly, a new subject can be developed by a university itself in the light of an awareness of a special need—perhaps an outstandingly brilliant scientist who has to have facilities for research, or a gap in the University's provision which urgently needs filling.

It is this last point which is most often emphasized as the main reason for the building up of independent endowments of universities. It comes, perhaps, most strongly from the colleges of Oxford and Cambridge (which are not directly aided from public funds [4]), whose fellows proceed to the election of new teaching fellows mainly in the light of the teaching needs of the college, and not from other considerations of the kind considered by the University Grants Committee, for example.

The colleges, however, are a special or limiting case. Little expenditure is undertaken by universities in the initiation of new developments that does not in the end—and usually a pretty close end—lead to expenditure under the first three heads: the re-direction of existing resources of manpower and buildings, the attraction of private gifts, and the grant of public money. This public expenditure may occur in the most unlikely fields of activity. Consider the appeal of the University of Oxford and its colleges for the restoration of the decayed fabric of their buildings, which drew support from the funds of these bodies themselves (already indirectly subsidized, as has been observed earlier), support from private subscriptions, and aid from public funds both directly and by the process of tax-remission which the form of the greater part of the gifts attracts. Similarly, the development of a new subject in the university eventually involves expenditure under the heading of general grants from the University Grants Committee, the payment by the Ministry of Education and local authorities of the fees of the students reading the subject, and the remission of tax (often) on the private endowment.

---

[4] They are, of course, heavily supported indirectly by exemption from direct taxes, low rates, the payment by the University of much of their fellows' total incomes, and the public subsidy of the greater part of their income from fees.

It is clear, then, that in one way or another public money is at the back of the greater part of new developments in the universities. In the other two cases—teacher training colleges and higher technical education—the initiation of new projects depends almost wholly upon public money.

How far is the initiative for change and development one that begins inside the university and how far is it pressure from outside? Is public money being used in the wisest manner? This is the purpose of my next section. In it I shall discuss the success of different methods of university and college finance in achieving desired ends—but first, it must be decided who is to say what ends are to be desired.

Ends—and Means

It is worth while considering which people decide how fast and how far learning shall go. They are, in this order: the Treasury, the U.G.C., the Ministry of Education (and the Scottish Education Department), the local authorities, the Board of Inland Revenue, the dons, other government departments, the managers of industry and trust funds who give grants, and—last by a long way—school teachers and parents. (I am assuming that Parliament will agree to anything.) The order is determined by how much money they control in the finance of higher education—if it were determined by effective influence it would probably be different.[5]

The Treasury decides how much money to give to the U.G.C., the Ministry of Education, and the other government bodies which finance higher education. The relationship between the Treasury and the other departments is a difficult one, and it can be said that it would be untrue to identify all the departments as speaking with one voice. The U.G.C. is largely an academic body concerned to advocate its clients' interests. The Ministry of Education has the task of finding enough teachers for the education service and at the same time of restricting expenditure by the local authorities. It is also in charge of the higher education programme conducted by local authorities. The local authorities have the general duty of advancing further education, and some of them have been chosen as the responsible bodies to conduct the designated colleges of advanced technology. The bigger authorities administer teacher training colleges. The Board of Inland Revenue determines in its interpretation of Acts of Parliament and High Court decisions the tax exemption of money used for the advancement of learning. The dons spend the money given to their charge by the bodies they are chosen to administer. The managers of industry and trust funds decide who shall receive their benevolence. The school teachers and parents help to choose which courses and places shall be the most popular for students, and so give the dons ammunition for asking for more money for themselves or less for their colleagues.

---

[5] There is room for an intelligent and informed study of informal methods of influence—the honorary degree, the knighthood, the right people at the right feasts—but he would be a bold man who would attempt it, and one at the end of his career. Presumably it would be a modern version of *Microcosmographica Academica*, by F. M. Cornford, a Cambridge classic rescued by Bowes & Bowes (publishers) and often since reprinted.

Evidence on the relative importance of different sources of finance for new developments in university is hard to collect. In general, endowments seem to be aimed more at the creation of new chairs and the erection of new buildings than at contributions to existing activities and help with running costs. Between 1928 and 1934, 83 new chairs were created in British Universities, and of these 33 (or about two-fifths) were wholly or partially endowed. The proportion since 1939 appears to be much lower. The influence of endowment may be important, however, in pushing universities into new fields. Thus, of the 83 chairs just mentioned, 9 were in theology and philosophy, 5 in languages, 14 in history, 6 in geography, 12 in 'social' subjects, and 34 in science and technology (leaving three unclassified). It appears that the bulk of the endowed chairs were in the last two categories. In recent years, however, the proportion of endowed chairs has declined substantially—though the absolute number has not. According to a very rough check the proportion has recently been little more than one-tenth. Since no university appears to establish new chairs without consulting the U.G.C., it is hardly too much to say that by far the greater part of the development of any new subject in a university must depend on the U.G.C.—though the initiative may and probably usually does spring from sources inside the university itself. Thus upon the U.G.C. devolves very considerable power.

In general, it seems that the U.G.C. has been successful in stimulating new work in universities, and it is probable—judging from the evidence just given—that endowments on a substantial scale are probably biased towards new and potentially important subjects (judged by the advance of new knowledge and the enthusiasm of students, especially research students). There is one caveat, however, that must be entered. The U.G.C.'s tradition of exclusiveness has had the result of leaving the non-U institutions either a little out in the cold (in the case of technology) or right out of the picture (as in the case of the teacher training colleges). This, however, can be remedied by putting them under a similarly constituted body.[6]

The system of quinquennial grants and the absence of detailed accounting has been criticized severely. It appears that it has been a *sine qua non* of the methods of influence developed by the U.G.C. that the existing non-interference in matters of financial detail should be maintained. In fact, it seems that the allegations of extravagance have been largely confined to criticism of building costs. This appears to be a valid criticism. University-building has been considerably more expensive than school-building, as well as less imaginative. The Ministry of Education has used modern cost-control and design-unit methods to achieve the reduction in school-building costs. Probably the most effective step that could be taken is to put the experience of this section of the Ministry of Education at the disposal of every educational body that needs advice, and to make such consultation obligatory on all government-supported projects.

Public Grants to Universities

The first government grants to provincial university colleges was given in 1889. By 1900 this grant was running at £37,000 a year in England and Wales. It rose substantially under the Liberal government, and more rapidly during the 1914–18 war. The U.G.C. was established by Treasury Minute on July 14th, 1919, " to enquire into the financial needs of university education in the United Kingdom and to advise the Government as to the application of any grants that may be made by Parliament towards meeting them ". In 1919–20, a million pounds was voted annually, as well as a £500,000 special grant. The Association of University Teachers played a major role in agitating for government grants, and it was on their recommendation that superannuation was established in 1913; and as a result of a delegation from the Association to the Committee in 1920 the grades of Professor, Reader, Lecturer, and Assistant Lecturer, with (in principle) minimum salary scales, were established. From the outset, therefore, the government's grants were given mainly to encourage the newer and smaller institutions and the academic staffs played a major role in seeking government support, and intervention in the organization of the universities. Under local administration their salaries were poor, their tenure insecure, their teaching loads heavy; and in its first report the U.G.C. were forced to write: " . . . *Status*. . . . It appears to us imperative that the lecturers should be given an effective voice in internal administration and in the regulation of courses of study and of discipline." [7]

---

[6] See below, p. 311.

[7] Report, 1920–1, p. 8.

The University Grants Committee effectively began its work in 1919–20 at a time when rising prices were putting considerable economic pressure on the universities and the returning ex-servicemen were leading to a great expansion in the number of students. By 1920–1 this pressure had eased—prices had fallen and the ex-servicemen were already leaving. But the initial alarms had permanently shifted the universities (other than Oxford and Cambridge) into a new position. Superannuation had been introduced, government grants to the institutions and the students were the largest single source of income, teachers' salaries had been raised, and an irreversible enlargement of teaching and research facilities had been initiated. In this process the U.G.C. played a critical role. It sought for some reasonable ordering of salaries, and slowly achieved it. It required a higher standard of libraries, laboratories, and accommodation. It pressed for greater self-government—in some universities the executive body of the university (like the schools to-day) contained few or no members of the staff. It pressed for a lightening of the load on young teachers, for sabbatical years, for greater independence among the undergraduates. It is hardly too much to say that the free atmosphere of modern universities, their encouragement of research, and their high principles of academic freedom and independence of spirit are due to the prodding of the U.G.C.—and not to emulation of Oxford and Cambridge. These Universities, indeed, in some respects lagged behind others.

The foundations laid in the early years of the U.G.C.'s work (of which an excellent summary is contained in the 1923–4 Report) found a basis for the steady expansion of university work between the wars. This had as its basis a greater awareness of the benefits of university education, a policy of giving grants to the clever poor, a considerable enlargement of research facilities—mirrored in the growing number of higher degrees instituted and awarded, and a growing number of subjects for university teaching—economics, modern languages, and the newer natural sciences, for example. Government grants gradually increased to provide the means to finance the expansion, and so did private benefaction—though not on the 'generous American scale'. The U.G.C. also pointed out that "it is not always realized that benefactions may result in substantial additions to the liabilities of a University".[8]

All the expansion took place in existing institutions—only two new colleges, Leicester and Hull, were founded between the wars, and neither received U.G.C. support until 1945. The U.G.C. was determined to maintain standards:

---

[8] Report, 1920–1, Para. 8.

> It seems that, until such resources are likely to be available . . . better results will be obtained by improving and developing the Universities already in existence than by hastening to add to their number. Universities, first and above all, stand for quality; they aim at providing the highest type of education attainable, through a staff of teachers endowed with outstanding qualities of intellect and personality. Until the general level of education throughout the country has been raised very much further than at present, Universities which really live up to this aim cannot be many, and we consider that a relatively small number of Universities, staffed and equipped on a working scale, will be of more value to the nation than a larger number of Universities of inferior strength.[9]

Their reasons for this view were that there was a shortage of people of sufficient calibre to teach in universities and that tax revenues were insufficient to pay for it—and an adequate new university required at that time an annual income of £150,000. In important respects the U.G.C. were wrong. In a period of general unemployment the cost of expanding a public service is a negative one, provided that an unbalanced budget is constitutionally permissible. There was an abundant supply of teachers of the requisite calibre, as the high quality of applicants for grammar school posts showed. Though the general level of education was admittedly inadequate, many able and qualified students were excluded from universities by lack of means. The U.G.C.'s arguments had, therefore, more of the quality of rationalizations than of reasons. They were paralleled exactly by contemporary arguments about the dangers of over-provision of adequate secondary education, and the discovery that most children were unworthy of the traditions of the grammar school. The English tradition of exclusiveness in higher education badly needed to be supported by arguments from public parsimony.

Gradualness, therefore, was the order of the day. In the mid-'twenties London University was reorganized, and in 1925–6 Oxford and Cambridge (after the Royal Commission) joined the other universities under the wing of the U.G.C. The relative position of different subjects varied with the course of trade. Science remained steady, medicine declined (after a post-war boom), and arts increased because of "the improved prospect offered by the profession of teaching".[10] After 1931, however, science and medicine once more advanced, while arts stood still.[11] Throughout the period about 10 per cent of the students came from overseas. Conditions of salary improved except among the lowest paid; tenure became more secure; status was advanced, largely by making the universities more genuinely self-governing: "The right view is that governing body, professors and lecturers are all united in a common bond of service to their University and that it is to the interest of all that means should be found to use and develop to the best advantage the powers of each individual member of these groups. . . . It seems . . . that the sooner University teachers can be given some experience of administrative problems . . . the better it will be for a University."[12] This correlation of status with self-government was a constant theme of the U.G.C., and ran directly contrary to the local government traditions of the founders of the civic universities; to this day the very thought appals the aldermen and councillors on education committees, and no school teacher would claim a modicum of what his colleagues at universities have as of right—professional self-government. Once more in English administrative history, central authority and control have increased freedom and efficiency by interfering with local government.

---

[9] ibid., 1920–1, Para. 8.

[10] Report, 1926–7, p. 5.

[11] Report, 1934–5, p. 4.

As a corollary of the U.G.C.'s high ideals for universities their emphasis was on residence—though in 1934–5 only 10 per cent of the students outside Oxford and Cambridge were in halls of residence. Another emphasis was on the tutorial method and not on lectures—quoting Dr. Johnson: " Lectures were once useful; but now, when all can read, and Books are so numerous, Lectures are unnecessary "—and on freedom from overloaded courses—quoting Newman: " I have no hesitation in giving a preference to that University which did nothing over that which exacted of its members an acquaintance with every science under the sun." (This last was erroneously believed to be in the humanist tradition—instead of the vicious obscurantism which it really represented.) It may well be that their concern for research and higher learning was no less enthusiastic, though it bulked less in their reports.

At the beginning of the war, universities were providing places for about 1 in 1,000 of the English population, and for 1 in rather less than 500 of the Scottish population. This compared with 1 in 125 for the United States, and figures of from 1 in 387 in Switzerland to 1 in 604 in Germany.[13] These figures probably under-estimated the English provision (because of the narrow definition adopted in England of the term 'university'), but they justified the U.G.C. in the cautious hope that the demand for university education would not diminish in the future. Certainly, the U.G.C. by 1935 was right in saying that " from the ranks (of graduates) are drawn the great majority of those who will become leaders in our national life. To ensure conditions of training which will enable them to go out into the world with minds richly informed, unsleeping in the exercise of a critical intelligence, and imaginatively alive to the human issues underlying the decisions they may be called upon to make, is perhaps the highest form of service".[14]

---

[12] Report, 1928–9, pp. 33–4.

[13] Report, 1934–5, pp. 28–9.

During the war the universities became a vital part of the national scientific and technological effort. The tide of social change that then reached new heights reinforced the national need to greatly reduce the social barriers to the universities. The gradual implementation of the 1944 Education Act was to provide more students, but first the generous provisions for the resettlement of ex-servicemen helped to enlarge their student populations. Thus, by 1950, the student population was 60 per cent bigger than before the war, and the provision for research was considerably greater, mainly because of the enlargement of scientific research.

TABLE V

UNIVERSITY POPULATION, 1900–65

Academic Year	*Numbers of Full-time Students* ('000s)
1900–01 . . .	20
1910–11 . . .	28
1920–21 . . .	48
1930–31 . . .	48
1934–35 . . .	51
1950–51 . . .	85
1955–56 . . .	85
1964–65 (estimated) .	124

At the same time the universities became more clearly a logical culmination of the whole educational process—the majority of their students came from the state system, where they began at the age of 5, and stayed at the university wholly at the public expense—only the minority (though a substantial one) came from the private sector and paid up to 20 per cent of the cost of their university education. This change in the social function of the Universities was seen in the revised terms of the U.G.C., which now read: ". . . to assist, in consultation with the Universities and other bodies concerned, the preparation and execution of such plans for the development of the Universities as may from time to time be required in order to assure that they are fully adequate to national needs."

As a result of this changed function of the U.G.C. the number of sub-committees was increased and they took a much closer interest in the planning of University development. Their role was helped by their much greater financial importance to the universities. The planning of expansion became less a matter of the *ethos* of universities than a matter of acute shortages of trained people. The Barlow Committee on Scientific Manpower (July 1946) suggested a basis of ninety thousand students as a post-war objective—based on a doubling of the numbers of scientists and technologists. This expansion took place mainly in the newer universities, including the new college in North Staffs, though Oxford and Cambridge rose by over 50 per cent. By 1948 the scientific total was met, although it was thought in 1946 that it would take ten years to reach it, but the arts had risen by only 502. The war and its aftermath marked, therefore, a switch towards science as well as an expansion in student numbers. The U.G.C. maintained its concern with academic standards, and hoped that admission would remain by " character, temperament, and wider qualities of mind " [15], though this raised problems of fairness once the great majority were ' subsidized '.[16] The staff : student ratio of 1 : 10 was not abandoned to any great extent, although the undergraduate : teacher ratio probably deteriorated, since the staff were augmented by a large number of research specialists.[17] The 1947 Report placed a new emphasis on research (bringing in Mark Pattison to support them—the unfortunate Newman being left on the shelf), though they cast a sop to the " good second-rate man " who has always been the bane of Oxford and Cambridge : " The search for hitherto unploughed fields of fact-finding is not necessarily a profitable one, and some of the works of the most eminent teachers of our own age are brilliant illustrations of the truth that the most significant contributions to human wisdom may consist less in the excavation of new facts than in the synthesis and illumination of knowledge already won." [18] The amazing view of advances in human knowledge as ' fact-finding ' may be interpreted as a sweetener to the more otiose members of Congregation and the Regent House.

---

[14] Report, 1934–5, p. 50.

The direction of expansion in the universities after the war was almost wholly dependent on government. The Goodenough Committee on Medical Education and the Inter-departmental Committee on Dentistry recommended expansion in these subjects, although after 1948 the direction and finance fell in large part on to the National Health Service. The Committee on Science and Technology provided for a general expansion in that field, the opening up of neglected subjects, and the concentration of resources so that research effort was not dissipated.

---

[15] *University Development for 1935 to 1947*, p. 34.

[16] In fact, all students are ' subsidized '.

[17] In over half the U.S. institutions of higher education it was more than 1 : 12 (ibid., p. 38).

[18] Report, 1935–47, p. 60.

The Loveday Committee on Agriculture brought university departments of agriculture under the U.G.C. and away from the Ministry of Agriculture, and made provision for a substantial expansion. Similarly, veterinary education was given university status. At the request of the Foreign Office, Oriental, Slavonic, East European, and African languages were given special support (to the tune of £250,000 a year), and similar support was given to the social sciences. (This grant rose to £400,000 by 1951–2.)

These special grants replaced, to a large extent, expansion financed by benefaction. By the second post-war quinquennium the system of block grants was largely restored, but they illustrate the importance of a special supply of funds to initiate new growth in a number of subjects. The reason for the U.G.C. reversion to block grants was to reduce their own powers of interference in university affairs, despite a specific government instruction in 1946 (fully accepted by the universities) that government had the right and duty to see that the national interest in the cultivation of every field of study was not neglected by parochial considerations. The U.G.C. considered the possibility of outside dictation so horrifying that it retreated from this position, largely on the ground that once a "satisfactory level of development" had been reached, the universities could best be left to make their own decisions. In fact, by 1952 the post-war expansion had stopped. "No further substantial increase in student numbers could be expected in the immediate future without reducing university standards"[19], the U.G.C. reported in that year. The U.G.C. returned immediately to their pre-war policy of raising salary levels, improving capital equipment, and encouraging the tutorial system and halls of residence. Within a year the number of students was falling. By 1957 the real income of several universities was reduced—mainly because their grants did not keep pace with the price rise. "Consolidation," said the U.G.C. in 1953, "does not, however, mean stagnation, for there is much scope for development and experimentation within the existing general pattern, and the mood of criticism and self-examination within the universities which we noted in our last report is still continuing."[20] The U.G.C. fought a healthy campaign on the one hand against those who held that "this has been an era . . . of technological success but of cultural failure" and wanted to devise a new orthodoxy,[21] and those who put forward clamant and unco-ordinated demands for the admittance of every new subject to the universities.[22]

---

[19] *University Development, 1947–1951* (H.M.S.O., London, Cmd. 8473), p. 8.

[20] *University Development, 1947–1952* (H.M.S.O., London, Cmd. 8875), p. 12.

[21] ibid., p. 13.

[22] ibid., p. 14.

At the present time, however, the period of consolidation is over. First, the number of students staying at school until the age of 17 and over is more than double what it was twenty years ago, and more of these people demand a university-type education. Next, the apparent shortage of trained scientists, teachers, managers, and civil servants reveals a grave deficiency of higher education. Then, the need for more and more research reveals a shortage of teachers, research workers, and laboratories. Expansion has begun again. There is no doubt that as a result of the period of consolidation the staff : student ratio of 1 : 7 is extremely good, the standards of accommodation are higher than they have been and the resources for research in some fields are reasonably adequate.

Expansion

The plan of expansion is for the number of students at universities to rise by 50 per cent or so by 1963–4. Much of this expansion is to be in scientific subjects and almost all of it is to take place in the newer universities, to bring them up to student populations of about 4,000 or 4,500. A new university is to be founded at Brighton. The capital expenditure envisaged in the quinquennium is about sixty million pounds. Other expansion is taking place on the basis of existing technical colleges. The U.G.C. recommended that some existing institutions should be developed as colleges of advanced technology which should be given quasi-university status. The reason for their not being given full status was that their range of subjects was too specialized. The government adopted the major part of the proposal,[23] to expand " as soon as possible " the capacity of advanced courses from 11,500 students to at least 18,000. In 1952 a 75-per-cent grant from the Ministry of Education and the Department of Education for Scotland to local authorities was given to some colleges of advanced technology, and it was proposed that these should be given quasi-university status, with the help of strong governing bodies free of local authority control, and adequate academic freedom, with a substantial programme of eighty million pounds for building and seventeen million pounds for equipment in the whole of Great Britain. In almost every respect the new colleges of advanced technology will come to rival the universities in status, equipment, and above all in numbers. The figure of 18,000 students is an immediate target: it might be expected that the numbers will reach in a quinquennium or so at least 30,000 full-time students, as well as the part-time students.

To this expansion must be added the plans for the teacher training colleges. By 1960–1 the 18,000 students in colleges will be given a third year. The programme of building is already well under way. By 1965, then, the programme for higher education in Great Britain might well give a picture of full-time students as follows of 190,000 students, of whom 66,000 are not in universities.

---

[23] *Technical Education* (H.M.S.O., London, Cmd. 9703), p. 14.

TABLE VI

THE STUDENT POPULATION, 1965

Universities	124,000
Colleges of advanced technology .	30,000
Teachers in training . . .	36,000
TOTAL	190,000

In other words, nearly one-third of the student population doing three-year full-time courses (at least) will be working under the auspices of bodies not supported by the U.G.C., though the share of universities in higher education may be expected to increase in the next few years. According to the Association of University Teachers (A.U.T.), indeed, this is an under-estimate of the need for provision of university places. In the past the Association has usually been right, so it will be well to amend the figures just given. In their Report on a policy for University Expansion (May 1958) they suggest that the population in the relevant age-groups will in the future be larger than it appears, and that the demand for a full grammar school-type education will increase at least as rapidly as it has in the past, and that this will yield a demand for places for at least twenty thousand more students than the U.G.C. expect. The number of places to be provided should therefore be at least 145,000, and this entails the founding of at least three more universities, as well as the one proposed at Brighton, and the expansion of non-collegiate universities to a size larger than already expected.

In this analysis of expansion the question of finance may to some extent be ignored. I have argued elsewhere—and it has never been refuted—that on reasonable assumptions about the national income and the course of educational expansion there will be resources available for most reasonable demands. Most of the money will be found by government. Compared with the U.S.A., industry in Britain is, by and large, shamefully inadequate in its gifts to learning, and when gifts are given they are often closely utilitarian—breweries support microbiology, chemical firms support chemistry, tax-dodgers support accountancy, and so on. The charitable trusts are relatively small and are not prepared on the whole to make long-term commitments. There is some case for raising more money from fees as a means of putting some of the burden on local authorities, but since rates are a regressive tax and local education probably needs the money more it is unlikely that this can become a major source of income without causing serious social wastage. The funds and the push will therefore come from government.

The money is being channelled into three categories—universities, colleges of advanced technology, and teacher training colleges. The A.U.T. suggest, rightly, that the expansion of universities will be at the expense of the training colleges, while the expansion of the colleges of advanced technology might be supposed to draw some potential students away from the gates of the universities. In other words, the three major forms of higher education are to some extent substitutes for one another, though they are divided at present roughly into three layers of intelligence and status (partly the low status of teacher training colleges is due to the large number of women teaching and being taught at them). The methods of finance and control are, however, extremely different, as has been suggested. How far is the U.G.C. a model of the way in which institutions of higher learning may be financed and developed? In order to arrive at a conclusion, a verdict has to be reached on the success of the U.G.C. in its present role.

An Assessment of the U.G.C.'s Role

First, there is much praise and little criticism of the U.G.C. on all sides and in all aspects of its work. The outstanding calibre of its members and its officials has been remarked, and their immense ability and prestige have been in themselves sufficient to make any attacker doubtful of success. A Select Committee of the House of Commons, in an unusually foolish report, attempted to criticize, and it is still licking its wounds. Then, the U.G.C. has been extremely successful not only in providing for university expansion and defending the universities against attack, but in raising the standards of university teachers—in terms of status, salary, and working conditions—and in directing the attention of universities to the fields of study where exciting progress was about to be made. In this respect their role from 1945 to 1952 was extraordinarily successful. Their battles against aldermen who regard their local university as a glorified grammar school, against dim college tutors raised to high office and despising (from their own ignorance) 'science' and the northern grammar-school boy, against the professional advancement of those with many articles but poor ability, have been worthy and successful. The quinquennial grant system has resulted in economy, efficiency, and responsibility—although under inflation the fifth year of the quinquennium has been one of near-panic, among those who are able to imagine that bankruptcy is a real possibility facing any public institution.

The system appears to work well during periods of quiescence, though one suspects that during such periods the older-established interests fight an action against the newcomers and that there is quiet diversion of resources back to the dimmer from the brighter stars of the academic firmament.

The colleges of advanced technology are too new in their present status to have acquired any permanent body to administer their finances, although two colleges are under the U.G.C. Their freedom from local authorities is not yet guaranteed by the White Paper, but the abundance of their resources is already recruiting a body of able scholars as professors and lecturers.

The teacher training colleges remain the proletariat of higher education. They are not self-governing, they are run by local authorities, in many of them the students have no freedom, in all of them the staff are without status. Their links with the universities are tenuous. From the negative evidence of the Kelsall Report on Application for Admissions to universities and the impressionistic evidence of visits, it seems that the social class of the teacher training college student is substantially lower than that of universities. The students are predominantly from B 'streams' in grammar schools; in universities they are from independent schools and A 'streams' in grammar schools—and these are highly correlated with social class. To some extent, therefore, the middle class experience a university education—which means high status and independence, and the lower classes experience a teacher training college—which means low status and little independence. This generalization applies less and less to lower-class men who attend or will attend the colleges of advanced technology and the universities, but it holds to a great extent for women. (The ratio of men to women at training colleges was about 2 : 7 in 1956.)

If we return to a consideration of the U.G.C. it will be seen that their attitude has always been very firmly one of restricting the size of the Universities, of keeping down their number, and limiting their intake to the really bright. Because of the universities' concern for high intelligence and for 'good all-rounders' they are exceptionally socially selective—it is far easier for the well-off and culturally well-endowed boys to get into the universities than it is for others. This exclusive tradition has had its benefits. The establishment of colleges of advanced technology has in fact broken the tradition for men. The typical man who stays on in full-time education after 18 will now be in fact in a university atmosphere—though the college of advanced technology may teach fewer arts subjects (at present) than would be usual in other universities. For girls, however, the exclusive tradition remains unbroken. Except for the very clever, the free air of a university is not available—and women's training colleges are always relatively small, relatively limited in the subjects they teach, and often relatively unambitious in their enthusiasm for maturity of outlook and purpose. Above all, they are exclusively vocational. In this respect, as in others, they resemble the smaller colleges of technology before the White Paper.

The contrast between the narrow university system of Great Britain and the broad university system of the United States is seen, therefore, to be less a difference in the provision of higher education and more in fact a division existing in Great Britain between U.G.C.-type institutions and local authority training colleges—a distinction based mainly on academic grounds but corresponding nevertheless to a division between groups of relatively high and relatively low social status. It might be argued, as the A.U.T. has done, that the growing pressure for advanced education and social status will drive more and more people away from the teacher training colleges towards the universities and the colleges of advanced technology. A movement of similar force is seen inside teacher recruitment itself. More and more intending teachers graduate first and then spend a year at a university department of education; the teacher training colleges increasingly provide staff for primary education.

It is perhaps worth while to consider whether it is not time for a Royal Commission to inquire into the whole field of higher education, because the growing conflict between the aims of the two sectors of higher education—the high-status and low-status—no longer corresponds to true divisions in society and social purpose. The universities and the colleges of advanced technology in fact aim at a broader section of intelligence and social class than they did; more and more, no vocation can be fulfilled without a degree—so the pressure on universities has become and will remain intense. In the circumstances, the enlargement of University education is certain to continue.

The big leap forward in 1956 was based largely upon building on existing institutions. It is worth pondering whether the next leap forward might not be by creating liberal arts colleges based on the most successful teacher training colleges. The biggest reservoir of potential university students in Britain at present is undoubtedly to be found amongst those women who on the whole become teachers, nurses, and secretaries. It is important—and it is generally recognized that it is important—that the educational background of all three groups should be as broad as possible. The provision of liberal arts colleges, linked possibly to the college of advanced technology, would undoubtedly be a means of doing this. It would be no more expensive than the existing programme for three-year teacher training colleges, and it would immensely raise their status. It is unlikely that there would be a change in the ultimate career-pattern of the graduates, because teaching and nursing are bound to remain the biggest women's professions.

In such a situation, the development of a new body of a type similar to the U.G.C. is a matter of urgency. The *ad hoc* arrangements for the colleges of advanced technology will have to be revised soon, and the dependence of the teacher training colleges on local authorities is one of the major reasons for their low status. There is no substantial reason why their financial arrangements should not come closely to resemble the U.G.C. pattern. If such a body is to be set up there is only one recipe for success. It must be small and contain people of the highest calibre, prestige, and liberal outlook. (Unfortunately, this will exclude most people at present connected with teacher training.) A Grants Committee for Advanced Technology and Liberal Arts (C.A.T.L.A.) composed of people of the calibre of the present U.G.C. might achieve a revolution similar to that achieved by the U.G.C. from 1919 to 1929, or from 1945 to 1952. The extra financial cost would be small but the gains in national welfare would be substantial.

JOHN VAIZEY.

CHAPTER FIVE

The Finance of Higher Education in the United States

HIGHER education in the United States is moulded by the society it serves. While the dominant social policy of democracy is pervasive, the organizations, institutions, and programmes—like our society itself—are highly diverse.

To understand the fiscal practices and trends in higher education to-day, one must be aware of the forces that have shaped its development. One influential force is tradition. The early colleges, patterned after those of Oxford and Cambridge, were oriented to the classical tradition. Within the last century the universities developed under the German tradition, also with high standards of scholarship, in science, in the arts, and in the professions. These traditions, despite marked changes through the years, have affected most institutions, especially the universities and the private, church-controlled or church-related liberal-arts colleges.

A second force has been social change. The growth of population, the development of agriculture and industry, the impact of science and invention on the economy, and the rising standards for labour have in turn had repercussions on higher education. In the first place, much of its control has passed to laymen, so that to-day only 20 per cent of the students are enrolled in institutions managed by church bodies. In the second place, curricula have gradually been brought to deal with the affairs of the material universe and the science of society. The land-grant colleges [1] of agriculture and mechanic arts brought within the scope of higher learning the study of arts and skills useful in daily living. And this concept has in recent years found expression in the establishment of numerous, multi-purpose, two-year community colleges to serve youth preparing for technical or sub-professional positions, as well as those who are preparing for entrance with advanced standing in degree-granting institutions.

Third are the forces promoting equality of educational opportunity. The publicly controlled institutions have consistently charged low fees. The development of the free public secondary school, available to all youth and publicly financed, has set an example that causes continuous examination of finance patterns in higher education. Through the years philanthropists have sought not only to finance programmes of quality, but also to assist worthy students whose families lacked the necessary means to pay for their college education. In recent years philanthropic foundations and corporations have markedly increased the number of fellowships and scholarships. Low-interest loan funds have been augmented. A few states—the number is growing—have instituted scholarship programmes for higher education. During the depression of the 1930's the Federal Government financed and administered loan and work programmes for college students. At present there are a number of student-aid programmes provided by the Federal Government to stimulate increased enrolments in specialized fields like medicine and nursing. But by far the greatest single experiment has been the so-called G.I. Bill of World War II and later the Korean War, under which millions of young men and women were provided entitlements for tuition, books, and living expenses at little or no cost to themselves. The experience has everywhere been deemed wholesome, and those who benefited may in time seek the advantages of higher education for their children. To summarize, the need for removing economic barriers to the higher education of youth is receiving widespread attention by individuals, institutions, and state and Federal governments.

---

[1] Established on basis of public lands granted in 1862 by the Federal Government to the several states for the purpose.

A fourth pressure is the tendency to assign to the college-educated individual advantages of position, income, and occupational satisfactions. Higher education has become almost a prerequisite to the more desirable positions of employment, and the pecuniary and social rewards have created high demand on the part of youth for a college education. It is not unusual to find thirty or forty youths out of each hundred members of high school graduating classes seeking entrance to colleges.

Fifth, there are the forces that cause society in its own interest to demand a trained leadership, whether in government, in the professions, or in economic activities. These forces stem from the growing complexity of modern living and the increasing interdependence of the world. From the viewpoint of society, higher education is *social capital* —the composite of the higher education of all its citizens that together makes for its security and its progress. Increasingly this concept is finding acceptance in the social consciousness.

Enrolments and Institutions

Financing higher education in the United States is a problem of increasing magnitude. The resident student enrolment in higher educational institutions in the academic year of 1900 was 237,592; in 1930 it was 1,100,737; and in 1954, exclusive of veterans, it numbered

2,180,843. It is estimated that at present the number is about 3 millions, and this number may reach 5 to 6 millions by 1975. This growth reflects in part a growth in population, which rose from 76 millions in 1900 to 162 millions in 1954. But it also reflects the enrolment of an increasing proportion of youth of college age. In 1900, of each 100 youth aged 18–21, 4·01 were in college; in 1930 it was 12·19; and while in 1954 the figure (veterans excluded) was 25·70, this proportion is expected to continue to increase in the years ahead.

As will be shown later, the type of control under which an institution operates, dictates its pattern of financial support. In this connexion it may be noted that about 53 per cent of resident students are enrolled in institutions publicly controlled, and this percentage tends to rise. The remaining 47 per cent are in institutions privately controlled, whether by an independent self-perpetuating board, or by churches.

The 1,871 institutions of higher education vary in size as well as in control. About 46 per cent of all students are enrolled in 129 large multi-curricular universities, 67 of which are under public control. While the average enrolment of these institutions is 5,000 students, some have more than 10,000 in attendance. About 20 per cent of all students are found in the 713 liberal-arts colleges, most of which have fewer than 1,000 students. In this group about three out of four students are found in private colleges, often church-controlled and church-related. The 200 teachers colleges enrol about 8 per cent of all students. Most of them, under public control, have fewer than 1,000 students. The 521 junior colleges and community colleges enrol about 12 per cent of the total. Here again the majority are small and under public control. The remaining 8 per cent of college students are found in 306 institutions, which include the technological schools, theological schools, and other types of professional schools. Of these, the theological schools are all privately controlled.

But resident instruction is not the only activity for which institutions of higher education must find financial support. In addition to students in residence in the academic year, over 800,000 students are enrolled for summer-sessions courses; 153,000 were enrolled in off-campus extension courses; 95,000 in correspondence courses; and 162,000 in adult education courses.

Research programmes frequently are associated with instruction programmes. Sometimes it is the work of the individual professor conducting research directly related to his teaching; sometimes it is a separately organized enterprise seeking basic new knowledge, or the application of what is known to the solution of defined problems. It is in the universities and the technological schools that the large-scale research programmes are generally found.

These functions—the instruction of youth, the education of adults, and organized research—in 1953–4 required the services of 268,028 instructional, research, and administrative personnel.

The Resources Employed

Before considering the financial operations required by this programme, the resources employed will be described. These resources consist of (1) the physical facilities that are used in the educational and research programmes; and (2) the endowments and other productive funds (including those with income designated for student stipends and student loan funds) accumulated through time to provide income in support of the enterprise. There are other types of resources, but these are the major ones.

The book value of these assets in 1954 was $11,345[2] millions, of which $3,312 millions represented endowment and other non-expendable funds to invest and produce income; and $8,033 millions represented the cost value of plant. The present value of invested funds is substantially above book value. The cost value of plant has more than doubled since 1948, and its present dollar value is much above cost.

Of endowment and other non-expendable funds, $628 millions are held by institutions under public control, and $2,685 millions by institutions under private control. Much of this resource is held by the older institutions of the north-east and north central regions.

Of plant, $4,189 millions is owned by institutions publicly controlled, and $3,543 millions by institutions privately controlled. In 1953–4, plant additions for publicly controlled institutions amounted to $335 millions, compared with $198 millions for privately controlled institutions. Thus the present emphasis is on the growth of physical facilities of publicly controlled institutions.

Expenditures

Expenditures for current purposes amounted to $2,902 millions in 1953–4, compared with $675 millions in 1940, and $2,240 millions in 1950. A summary is given below. Educational and general expenditures are those incurred primarily for the institution's educational programme. Expenditures for auxiliary enterprises are moneys spent on activities carried on either as a convenience to students or as a service to student life outside the classrooms: dormitories, dining-halls, bookstores, and the like. Student-aid expenditures are stipends for which the student does not render service—fellowships, scholarships, prizes, or grants-in-aid.

---

[2] 2·82 U.S. dollars=£1 sterling.

TABLE I

CURRENT EXPENDITURES
INSTITUTIONS OF HIGHER EDUCATION, 1953–4

(*Thousands of Dollars*)

	All Institutions	*Publicly Controlled Institutions*	*Privately Controlled Institutions*
I. *Educational and General*			
General administration and general expense	290,533	124,249	166,284
Instruction and departmental research	966,769	555,505	411,264
Organized research	374,922	203,228	171,694
Extension and public service	114,680	108,345	6,335
Libraries	73,438	39,175	34,263
Plant expense	280,047	156,791	123,256
Related activities	187,961	112,621	75,340
	2,288,350	1,299,914	988,436
II. *Auxiliary Activities*			
Dormitories, dining-halls	300,861	139,577	161,284
Other	238,466	132,840	105,626
	539,327	272,417	266,910
III. *Student Aid*			
Fellowships, scholarships, and prizes	74,789	25,127	49,661
TOTAL	2,902,466	1,597,458	1,305,008

There are some important observations to be made concerning these expenditures. The reader will doubtless be surprised at the meagre expenditures for student aid—less than $75 millions in all—that flow through the institutions. This sum is to be compared with costs borne by students and their families that will perhaps exceed $3 billions[3] annually. On the other hand, the institutional expenditures related to student life and services, activities which in the main are supported by the students, are large—more than half a billion. This figure has been increasing over the years. That the figure is not larger reflects the fact that many students live either at home or in residences not under institutional ownership and control.

---

[3] The United States billion equals a thousand millions.

The expenditures for programmes merit special attention. Note that private institutions spend less than public, accounting for 43 per cent of the total, although they enrol 47 per cent of the students. The programmes of research cost about $375 millions. This was almost two-fifths as large as the $967 millions spent on instruction. Most of the $115 millions for extension services was spent by public institutions. The expenditures for related activities were for enterprises associated with the instructional programme, but for which income from operations was derived—a teaching hospital, a creamery, a laboratory school. The relatively smaller expenditure for administration in publicly controlled institutions does not mean that as a group they are more efficient, but rather that accounting practices differ.

It would be of interest to study the various expenditure patterns of the different types of institution, but space does not permit. In passing, it may be mentioned that heavy expenditures for organized research would be found in the universities, and relatively greater expenditures for general administration and plant in the small institutions.

Because it reflects a crucial problem for higher education, one specific expenditure item—faculty salaries—will be considered here.

The salaries of teachers in colleges and universities are generally considered to be low. A sample[4] of institutional salary scales for the academic year 1957–8 revealed the following average salaries:

Professors	$8,690·00
Associate professors	$6,890·00
Assistant professors	$5,720·00
Instructors	$4,650·00

Salaries of professors in but few instances reached a figure as high as $18,000·00. The problem in the years ahead of securing and maintaining able staffs in competition with the demands of industry is a major one, and one that has important implications for finance.

Current Support

As the colleges and universities operate within their income, the growth in expenditures on programmes and increased enrolments must be paralleled by a growth in income. A glance at the major sources of support will be instructive.

---

[4] Reported in a release dated November 11th, 1957, by the United States Department of Health, Education, and Welfare, concerning a study "Higher Education Planning and Management Data, 1957–1958", Circular No. 517 (United States Office of Education, Department of Health, Education, and Welfare, Washington, D.C.).

TABLE II

CURRENT INCOME

INSTITUTIONS OF HIGHER EDUCATION, 1953–4

(Thousands of Dollars)

	All Institutions	*Publicly Controlled Institutions*		*Privately Controlled Institutions*	
		Amount	%	*Amount*	%
I. *Educational and General*					
Student fees	598,547[1]	165,488[1]	12·2	433,059[1]	43·2
Federal Government	375,175	199,576	14·7	175,599	17·5
State governments	751,556	729,677	53·9	21,879	2·2
Local governments	88,198	86,444	6·4	1,754	0·2
Endowment earnings	127,533	14,704	1·1	112,829	11·3
Private gifts and grants	191,259	38,550	2·8	152,709	15·2
Organized activities:					
Related to educational departments	165,477	93,770	6·9	71,707	7·2
Other sources	58,762	26,580	2·0	32,182	3·2
	2,356,507	1,354,789	100·0	1,001,718	100·0
II. *Auxiliary Enterprises*					
Dormitories, dining-halls	337,773	150,485	—	187,289	—
Other	239,067	135,787	—	103,280	—
	576,840	286,272	—	290,569	—
III. *Student Aid*					
Fellowships, scholarships, and prizes	32,918	10,355	—	22,564	—
TOTAL	2,966,265	1,651,415	—	1,314,850	—

[1] *Includes payments by the Federal Government for veterans fees: Total $44,368,000; publicly controlled, $17,425,000; privately controlled, $26,943,000.*

General Patterns of Support

Table II shows the main flow of current support by sources according to different types of control. However, it must be kept in mind that educational activities include the functions of campus instruction, organized research, and adult education; data showing the support pattern for each of these functions are not available.

As concerns major support sources, an interesting contrast is apparent. In the publicly controlled institutions, student fees plus support from state and local governments together provide 72·5 per cent of educational and general income. On the other hand, in the institutions privately controlled, student fees plus support of income from endowment and philanthropic gifts together account for 69·7 per cent of the income. In the publicly controlled institutions, fees represent 12·2 per cent of income and appropriations from state and local governments 60·3 per cent, whereas in the privately controlled institutions fees account for 43·2 per cent and philanthropy for 26·5 per cent. It is of some interest to note that state and local-government support provide 2·4 per cent of the total for privately controlled institutions, while publicly controlled institutions receive 3·9 per cent of their support from philanthropy. The income of organized activities relating to instructional departments includes income from teaching hospitals, laboratory schools, and other activities which serve the teaching process. Other sources include sales and services of educational departments.

The income of auxiliary activities is ordinarily enough to meet all costs of such activities as dormitories, dining-halls, bookstores, and sometimes inter-collegiate athletics. The income for student aid is that which is so designated, and does not include other available income that may be so applied.

Student Fee Support

The mean charge for tuition in public institutions in 1956–7 was $152·00, while in private institutions it was $511·00. Among private institutions, however, the only significant difference in tuition was between universities and junior colleges, where the respective means were $596·00 and $442·00. The variation in mean was proportionately greater among the public institutions: $283·00 in universities as opposed to $145·00 in teachers colleges.[5] The low fees in publicly controlled institutions currently approximate an average of 30 per cent of the direct cost of instruction. The much higher fees in privately controlled institutions at present average 105 per cent of the direct cost of instruction. Fees in proportion to the direct cost of instruction appear to be slowly declining in publicly controlled institutions, and gradually rising in privately controlled institutions.[6] The author believes that in recent years, class sizes have tended to be larger, and physical facilities more effectively used; these of course are practices that contribute to a lower per-student expenditure.

---

[5] Abstracted from *Cost of Attending College* (United States Department of Health, Education, and Welfare, Washington, D.C., Bulletin 1957, No. 9).

[6] The proportion in 1930 in publicly controlled institutions was 33·4 per cent; in privately controlled institutions 100·6 per cent.

Federal Government Support

In 1953–4 the Federal Government, in addition to paying some $44 millions for veterans' fees and $8 millions for plant additions, provided $375 millions for current institutional support. This sum was allocated as follows:

Research grants and contracts	$282,379,078·00
Land-grant college support	50,551,637·00
Other	42,244,218·00
	$375,174,933·00

Except in the case of research, most of the money went to publicly controlled institutions. Research grants and contracts are by far the largest item. Of this fund, $113·8 millions was received by publicly controlled institutions, and $168·5 millions by privately controlled institutions. Organized research expenditure has grown rapidly. As a percentage of educational and general expenditures in all institutions it rose from 5·00 in 1930 to 19·63 in 1954; in publicly controlled institutions from 7·46 to 18·56; in privately controlled institutions from 2·52 to 21·04. There is some evidence that the level of expenditures as a proportion of total current educational and general expenditures is tending to stabilize at the present level. Much of the research has to do with phases of the national welfare—health, education, science, and defence; the Government has sought staff and facilities prepared to provide needed service. It should be noted that the research activities of higher education represent but a fraction of the great research programmes concurrently conducted within industry.

State and Local-government Support

The support of state and local governments, which together accounted for 60·3 per cent of current income in 1953–4, appears to have been well maintained through the years. It is now above the pre-war figure of 59·2 per cent in 1938.

Local-government support is often provided by cities or counties for local institutions like junior colleges or community colleges.

In addition to current support of $839·8 millions for all institutions, state and local governments provided $146·9 millions for plant expansion. This appropriation for plant expansion is exceptionally large, and reflects advanced planning to provide for the anticipated rise in enrolments.

Philanthropic Support

In 1953–4, philanthropic contributions to higher educational institutions aggregated $418 millions, an amount which compares with an aggregate of $105 millions so provided in 1940. These contributions were made by alumni, churches, foundations, corporations, and individuals. The amounts and purposes of these gifts in 1953–4 are shown below:

TABLE III

PHILANTHROPY FOR HIGHER EDUCATION, 1953–4

(Thousands of Dollars)

Designation	*All Institutions*	*Publicly Controlled Institutions*	*Privately Controlled Institutions*
For endowments	106,538	21,342	85,196
For plant extension	103,900	7,467	96,433
For current expenses:			
Educational and general	191,259	38,550	152,709
Student aid	16,772	5,777	10,995
TOTAL	418,469	73,135	345,334

The gifts to endowment are non-expendable respecting principal. Such funds are invested to produce income, and it is this alone that affords the measure of philanthropic support from endowment. The contributions for plant expansion in privately controlled institutions are the primary sources of support for physical facilities, and it is common policy to rely on this support and not to charge depreciation. Plant funds so secured by private institutions when measured in relation to educational and general income declined from 19 per cent in 1930 to less than 10 per cent in 1954. There is some doubt whether this traditional policy for financing plant for private institutions will suffice for the future. New sources of finance may be found to be necessary.

The annual support from philanthropy of the on-going programme is found in (1) the income earned by endowment and (2) expendable gifts and grants.

Philanthropic Support—Endowment

At June 30th, 1954, institutions of higher education held about $3·2 billions of invested endowment, reported at book value. The total earnings from these investments in 1953–4 was \$127·5 millions, compared with \$75·2 millions in 1944 and \$68·6 millions in 1930. But the picture is not as cheerful as these figures would seem to indicate. Although actual income rose, because of inflation its purchasing power in 1954 was only 15 per cent more than in 1930. When the increase in enrolments is taken into account, it becomes evident that endowment income per student declined from \$62·33 in 1930 to \$50·69 in 1954. While endowment income is expected to continue to rise, as a proportion of the total income for higher education it will probably continue to decline.

It is a characteristic of endowments that they tend to concentrate. Thus while most private institutions hold some endowment, the greater part of the funds is held by a few relatively well-financed institutions. It is estimated that forty institutions possess two-thirds of all endowment. And it is characteristic of the heavily-endowed private institution that its student fees are among the highest. The current value of Harvard's endowment is reported to be \$500 millions; that of Yale \$257·6 millions; and that of Chicago \$169·4 millions. On the other hand, there are many institutions with endowments of less than \$1 million.

Philanthropic Support—Expendable Gifts and Grants

Private gifts and grants for educational and general purposes in 1953–4 amounted to \$191·3 millions. When measured as a relative of endowment income, the figure was 150 per cent in 1954; 57 per cent in 1940; and 36 per cent in 1930. Thus in recent years increasing emphasis has been placed on providing expendable funds, rather than endowment. As was noted earlier, privately controlled institutions receive the major share of these gifts. In these institutions, expendable gifts and grants provided 9·1 per cent of the total income for educational and general purposes in 1930; 12·8 per cent in 1940, and 15·2 per cent in 1954.

Practices in Financing Higher Education of Youth

Any summation of institutional practices for the nation obscures the great variations that exist among the several states. It will be of interest, therefore, to review some of the findings of a study[7] recently completed by the author. This analysis of 1951–2 statistics dealt with the financing of higher education within each of the states.

Those familiar with the American economy are aware that there is great variation among the states with respect to the incomes of the residents, as measured by the annual incomes paid to individuals, divided by the total population of the state. "State *per capita* incomes", while an imperfect index, affords perhaps the best single measure of the ability of the citizens of a state to support social services, including higher education. In 1951–2, state *per capita* incomes ranged from \$801·00 to \$2,200·00, with eighteen states having *per capita* incomes below \$1,400·00, and thirteen states having *per capita* incomes above \$1,800·00. As might be anticipated, the proportion of youth of college age attending college differs markedly among the states, high attendance tending to be associated with high *per capita* incomes.

---

[7] Thad L. Hungate, *A New Basis of Support for Higher Education* (Bureau of Publications, Teachers College, Columbia University, New York, 1957).

The factor of student migration must be considered in assessing the degree to which a state is making adequate provision for the higher education of its youth. While about 20 per cent of college students were enrolled at institutions outside their home states, this percentage was by no means uniform. The range was from 7·2 per cent for residents of California to 55·8 per cent for residents of New Jersey. About two-thirds of these students were enrolled in privately controlled institutions to which they can migrate freely, and about one-third were in publicly controlled institutions. The latter tend to impose restrictions on migration in order to limit expenditures of state funds on out-of-state youth, since non-resident fees, although generally higher than fees for residents, are usually substantially below the cost.

The study disclosed great inequality among the states, both in the total current support provided and in the proportions derived from the major sources. The *total current support*, including that both for publicly and for privately controlled institutions, *per capita* of the population aged 18–24, afforded a measure for comparison among the states. For each, the estimated cost of the education of youth was derived by deducting from *educational and general expenditures* the estimated costs of *organized research* and *extension services*. For each state the resulting figures for all institutions, for those under public control, and for those under private control, were divided by the number of state residents aged 18–24 years. Further, the difference between the *per capita* total support and the *per capita* student-fee support afforded a comparable measure of non-fee support, which of course in public institutions is derived primarily from public funds and in private institutions from philanthropy. A summary for all institutions is shown in Table IV.

It will be observed that *total current support per capita* of the state population aged 18–24 varied widely: \$46·10 in South Carolina, \$57·17 in Alabama, \$66·99 in Pennsylvania, \$104·77 in California, and \$125·37 in Massachusetts. The *per capita* support in Massachusetts is 172 per

TABLE IV

Total Amount by Source of Current Support for Resident Instruction in all Institutions of Higher Education provided by State Residents and Philanthropists per Capita of State Population aged 18–24

State	*Total Amount*[1]	*Fees*	*Non-Fee in Publicly Controlled Institutions*	*Non-Fee in Privately Controlled Institutions*	*Total Non-Fee (Social) Amount*
Alabama	$57·17	$20·43	$30·62	$6·12	$36·74
Arizona	67·64	24·16	40·78	2·69	43·48
Arkansas	46·79	20·09	21·23	5·47	26·70
California	104·77	36·60	60·22	7·95	68·17
Colorado	124·36	44·28	69·39	10·69	80·08
Connecticut	121·47	62·38	25·70	33·39	59·09
Delaware	81·53	38·54	33·98	9·01	42·99
Florida	75·74	31·22	39·17	5·35	44·52
Georgia	46·92	23·63	13·19	10·10	23·29
Idaho	89·26	31·14	49·19	8·93	58·12
Illinois	102·52	43·16	42·76	16·60	59·36
Indiana	76·53	28·27	41·20	7·06	48·26
Iowa	96·24	29·76	56·21	10·27	66·48
Kansas	96·16	36·96	50·59	8·61	59·20
Kentucky	47·92	23·10	16·78	8·04	24·82
Louisiana	64·14	18·33	37·69	8·12	45·81
Maine	56·95	32·79	14·63	9·53	24·16
Maryland	73·14	34·23	29·01	9·90	38·91
Massachusetts	125·37	75·26	12·66	37·45	50·11
Michigan	89·64	30·28	54·07	5·29	59·36
Minnesota	91·09	33·42	49·00	8·67	57·67
Mississippi	47·34	23·10	18·32	5·92	24·24
Missouri	71·27	36·62	21·92	12·73	34·65
Montana	91·82	26·43	58·71	6·68	65·39
Nebraska	84·43	34·02	41·65	8·76	50·41
Nevada	83·47	30·00	48·66	4·81	53·47
New Hampshire	95·64	49·44	30·22	15·98	46·20
New Jersey	89·38	59·11	6·02	24·25	30·27
New Mexico	82·49	24·09	55·16	3·24	58·40
New York	103·47	60·34	19·85	23·28	43·13
North Carolina	52·71	22·46	20·09	10·16	30·25
North Dakota	89·05	25·31	56·87	6·87	63·74
Ohio	76·06	33·98	30·65	11·43	42·08
Oklahoma	83·99	26·93	53·56	3·50	57·06
Oregon	97·19	34·25	56·77	6·17	62·94
Pennsylvania	66·99	43·22	5·05	18·72	23·77
Rhode Island	88·73	52·11	20·32	16·30	36·62
South Carolina	46·10	20·06	19·71	6·33	26·04
South Dakota	86·15	30·78	46·27	9·10	55·37
Tennessee	52·09	23·05	19·74	9·30	29·04
Texas	66·48	26·77	33·21	6·50	39·71
Utah	105·61	35·71	60·33	9·57	69·90
Vermont	84·86	51·46	22·86	10·54	33·40
Virginia	60·85	29·80	21·74	9·31	31·05
Washington	109·91	31·91	72·30	5·70	78·00
West Virginia	53·01	20·14	28·55	4·32	32·87
Wisconsin	83·37	35·58	38·46	9·33	47·79
Wyoming	101·38	24·33	72·14	4·91	77·05

---

[1] *Total amount equals total support for state residents plus in-state non-fee support in public institutions for non-residents less non-fee support for state residents in public institutions of other states.*

cent greater than in South Carolina. In general, the amount of support provided was consistent with financial ability as measured by state *per capita* incomes.

Regarding the major sources of support, in relatively few instances was philanthropy found to be a strong force. In only eight states can it be said to be of substantial importance—Massachusetts, Connecticut, New Jersey, New York, Pennsylvania, Illinois, Rhode Island, and New Hampshire. While philanthropy may be expected to play an increasing role in pioneer educational undertakings in all the states and to augment the existing foundations of a limited number of great private institutions, as a sustaining force in supporting the education of youth it will probably decline relatively to the rising cost.

Fee support *per capita* of the state population aged 18–24 differs markedly. Like total support, it too correlates with state *per capita* incomes. High fee support was found in the states which rely strongly on private institutions—Massachusetts, Connecticut, New York, New Jersey, Rhode Island, New Hampshire, and Vermont.

But *public support* from tax funds *per capita* of state population aged 18–24 generally bears no significant relationship to the ability of the states to pay for higher education. The range was from $5·05 to $69·39. This fact is of outstanding importance, in light of the fact that *per capita* public support of elementary and secondary education does bear such significant relationship.

The following figures from six selected states reveal the diverse patterns of public support provided.

State	*State* per Capita *Income*	*Higher Education* per Capita *Total Current Support*	*Higher Education* per Capita *Current Support from Public Funds*
Alabama	$971	$57·17	$30·62
Iowa	1,545	96·24	56·21
Pennsylvania	1,699	66·99	5·05
New Jersey	1,933	89·38	6·02
California	1,950	104·77	60·22
New York	2,033	103·47	19·85

It is evident that Alabama, Iowa, and California are providing relatively strong support from public funds. In relation to financial ability, the effort of Pennsylvania to provide public support for higher education ranked lowest in the nation; New York was forty-fifth and New Jersey forty-seventh. And these low placings are all the more to be noted because these states place considerable reliance on out-of-state public fund benefits accorded to their students enrolled in out-of-state publicly controlled institutions.

Costs Borne by Students and Their Families

A recent study has been made of the cost of attending college,[8] based on a random sample of some 15,000 students in 110 colleges located in 41 states and the District of Columbia. It is estimated that during the academic year 1956–7, on the average students spent \$1,493·00 to attend public institutions and \$2,047·00 to attend private institutions. The former amount included \$152·00 for tuition, the latter \$511·00.

Sources of funds were: Long-term savings, 20 per cent; family contributions, 40·5 per cent; earnings during school year, 17 per cent; summer earnings, 9·3 per cent; scholarships, 4·8 per cent; veterans' benefits, 4·3 per cent; loans, 1·5 per cent; gifts from others, 0·7 per cent; other sources, 1·9 per cent.

Educational costs—including tuition, fees, books, study materials—accounted for one-sixth of total expenses incurred by students attending tax-supported institutions in 1952–3, while living expenses accounted for the other five-sixths. In the private institutions, educational costs were one-third of the total, living costs two-thirds. Included in living expenses are such items as room, board, clothes, travel, and recreation.

It must be borne in mind that the figures are averages and that averages hide the characteristics of the array, from the students of well-to-do families to those who depend wholly on their own resources. Many students enjoy high standards of living, many others must exercise rigid self-denial.

The Exercise of Responsibility by Government

Higher education in the United States has traditionally been served by privately controlled institutions. Increasingly in this century, however, institutions under state or local-government control have been developed. These have been particularly strong in the west and midwest. Until recently, the pattern of public higher education in a state often consisted of individual institutions of several types, each separately controlled, and each seeking support from the same legislature. One might find, for example, a state university, a state land-grant college, and several state teachers colleges. In recent years, however, state systems have been evolving; the self-governing publicly controlled institutions have become a part of an organization either under the loose control of a co-ordinating board, or under the closer control of a central administrative board. Such centralization has often resulted in raising standards in the weaker institutions.

---

[8] E. V. Hollis and Associates, *Cost of Attending College* (United States Office of Education, Department of Health, Education, and Welfare, Washington, D.C., Bulletin 1957, No. 9).

At the present time most of the states have developed, or are in process of developing, long-range programmes for higher education. Without question they will expand their facilities for the growing number of young people, and they will increasingly extend public support consistent with the means they severally possess.

The Federal Government, although it does not assume responsibility for institutional programmes, has a complex relationship with higher education. In addition to granting funds to institutions as noted earlier, it provides annually a substantial sum for student aid. For example, in 1954–5, this total was about $818·0 millions, of which $705·3 millions represented aid to veteran students; $18·8 millions for the international educational exchange programme; $12·4 millions for traineeships in the fields of science and health; $36·7 millions for the training of reserve officers for the armed services; and $44·8 millions for the academies of the armed services.

Furthermore, the Federal Government operates a low-interest college loan programme to assist colleges, both public and private, to build houses, etc., for students and staff.

In the spring of 1956 the President of the United States appointed a committee of distinguished citizens to study education beyond the high school. The report of this committee stressed the need for teachers, for assistance to students, for comprehensive planning, for appropriate financing, and for examination of relationships of the Federal Government with education at this level. A major recommendation of this committee was the establishment of a permanent body to provide to the Secretary of Health, Education, and Welfare " a continuous and orderly review and development of the national and inter-governmental aspects of education beyond the high school ".

The Problems and the Outlook

Each state must determine for its youth the minimum standards for higher educational opportunity, including quantity, quality, variety, and accessibility. As yet they have not provided public support consistent with the means they possess. In the great expansion period ahead, will the cost burden on students and their families be graded according to their ability to pay? And can privately controlled institutions, whose freedoms must ever be safeguarded, be brought to serve effectively in an over-all state plan?

It can be expected that each state will strive to achieve for its youth equality of educational opportunity *within* the state. For equality *among* the states probably cannot be achieved without Federal aid. Will such aid be forthcoming?

The Federal Government is in process of developing its role. We may not expect that it will seek centralized control, but rather that it will—in the course of time—provide aid to the states, based on objective formulae, to promote equality of educational opportunity. The two aspects of the need are, of course, financing the costs borne by institutions, and financing the costs borne by students and their families. In providing any broad-scale Federal programme of aid—to be administered by the states—it is deemed likely that account will be taken both of the varying fiscal capacities of the several states and of the abilities of families to provide funds for the higher education of their youth.

It is the author's opinion that basic state and national policies for the financing of higher education are now forming, and the people of the United States are becoming increasingly aware of the values and the issues. We may confidently expect them to choose wisely.

THAD L. HUNGATE.

CHAPTER SIX

Organization and Finance of Universities in Italy

AMONG the most controversial problems in Italy to-day is the question of the university's double role: instruction in subject-matter and training for a professional future. Italian thought—ever since Carlo Cattaneo (1801–69) and Silvio Spaventa (1822–93), even throughout idealism (Croce and Gentile) and every other main trend in national thought (R. Mondolfo)—has always rejected the idea of a profession which did not sustain and nourish itself continuously from an ever-renewed flow of scholarly research; thus we have always refused to divorce professional education from formal scholarship. Between pure scholarship and professional practice there is a reciprocal linkage which just cannot be undone. Therefore for a profession of young people the education takes root in that same academic field of knowledge which the profession itself relies on for its sustenance, its topicality, and its modernization. Without scholarship there exists not a profession but a mere career, dull and unreflecting.

In practice, however, to-day the number of students enrolled in the university is vast in proportion to the classroom accommodation, halls, libraries, and laboratories of our higher institutes. It bears no real relation to their ability to cater for so many. Indeed, it is common knowledge that if, in fact, all the young people enrolled in the university chose to turn up, there would not be enough room to accommodate them. Therefore, as has been said, the question is urgent, and is full of new stresses. Italian legislation, as contained in the Gentile reforms of 1923, declares that students who have obtained their doctorate (the only strictly academic qualification that the university awards), and who intend to register in the various professional bodies and associations to take up their career, must undergo a State Examination (*Esame di Stato*) immediately after obtaining their degree, so as to win recognition as qualified members of their profession (*abilitazione all' esercizio professionale*). This proposal has been established in principle in the new constitution of the Republic; however, every year protests are increasingly raised against it by professors no less than by students. This year (1958) demonstrations against it were so unusually violent and heated that government intervention was required, with a view to amending the law.

Objection to the State Examination is voiced in the following terms:

"If the university gives merely academic instruction, and if its competence is only that of preparing students for scholarly research by means of specialized courses, practical work in laboratories, and seminars, where are the institutions in which students can become better prepared for the professions for which this State Examination is meant as a test? Where is the justice in requiring such a scrutiny of them?"

Clearly the question is a real one. It becomes more explicit to the extent that it spreads throughout the country the idea of reforming university education by introducing a distinction between an academic degree and a professional qualification—in other words, between competence in scholarship and competence on the ground of a professional education. Moreover, ideas vary considerably and vehemently about the means of bringing such a proposal to actual fulfilment. Besides, as is obvious, there is no lack of people who, though harking back to the tradition of thought referred to earlier, are still opposed to any reform.

It is difficult to foretell the future. The problems involved are serious. To have them fully discussed in Parliament may be a matter of some difficulty. Certainly, it is conceivable that sooner or later there may be a reform of the university in the sense indicated.

Teacher Training

This seems the more likely because the problem is associated with another that is both serious and a sore point in public discussion—namely, that of training teachers for secondary schools. In Italy there are no special colleges, as elsewhere, for the training of secondary school teachers. They study at the university without any reference to a future career. They obtain a degree in the academic subject of their choice, and on the plane of pure scholarship. They are young men with a doctorate in Latin language and literature, geography, Italian language and literature, history, physics, mathematics, or natural sciences. After obtaining their degree, if they wish to enter secondary school teaching, they submit to a competitive examination. This is a true State Examination, for the profession is specialized and difficult. On the strength of success in this examination they can enter the teaching profession as permanent members.

Thus in Italy a system prevails whereby teachers in secondary schools receive an academic education in the subject or subjects in which they specialize, but receive no specific preparation for the teaching profession. Idealism (Gentile), by identifying 'knowledge' and 'knowledge of how to teach', has thus put a particular interpretation on a concept deeply rooted in our cultural traditions. Nowadays, however, in recognition of various experiments conducted abroad, and in keeping with a new assessment of education studies which has developed since the war, various shades of public opinion are in revolt against this state of affairs. There is a desire to have teachers who are also fully educated in professional respects, and not just learned. This augurs well for a radical reform, destined to establish specialized departments of education or new university regulations, so as to impart professional training to students coming from any university faculty and intending to take up a teaching career; this would be based upon a theoretical study of educational principles, psychology of child development, and comparative education. However, the idea is meeting many obstacles because of present circumstances.

Proposals for a Faculty of Education

Connected with what has already been said here, there is a broad movement afoot for the revision of our university regulations. This has been promoted in recent years by the Ministry of Public Instruction. There have been several conferences, in fact, of deans of relevant faculties, university teachers, and head masters, with a view to studying the needs of the faculties themselves, of the proposed courses of study, and the chances of reform. Of these conferences one in particular deserves special mention for its significance—the conference at the University of Padua in January 1958. It was attended by university teachers of pedagogical studies, who resolved on the establishment of a new university faculty which has not existed in Italy so far : the Faculty of Education. This faculty would, among other things, be charged with the professional training of all students, from whatever their original faculty, who intend to take up secondary school teaching. It would be based upon four groups of subjects : philosophy, education, psychology, and sociology-with-administration.

But the deans of the Faculties of Arts and Philosophy, and those of departments of elementary teacher training (*magistero*) (who are, more or less, concerned with instruction in arts and philosophy), rejected this proposed Faculty of Education when they were invited to express their opinion of it. This they did, however, by only a slender majority.

Finance and Staffing

In this brief and restricted account of the problems of the Italian University we cannot touch upon questions of structure in the various faculties. Yet we still have to take account of two great problems—the greatest, indeed, affecting the economics of higher education in Italy.

The first of these is the problem of financing the universities in Italy. Between 1955–6 and 1956–7 the part of the budget of the Ministry of Public instruction concerned with the university rose from

12,624,764,070 *lire*[1] to more than 13,593,130,070 *lire*. Other proportionate increases occurred in the year 1956–7, and latterly in 1958. Moreover, of this great sum more than 94 per cent was spent on salaries, and barely 5 per cent on other services, i.e. on teaching accommodation and on co-ordinating scholarly research. So the shortage of library facilities (which are impossible to bring up to date), of facilities within the institutions themselves, and of research laboratories is really serious. It precludes a large amount of research and study that the scholarship of the professors and the faithful interest of the junior teaching staff would promote if it were possible. It is clear that economic pressures are especially felt in the vast field of nuclear physics. Consequently there is a continual exodus to foreign universities, particularly those of the United States, which offer greater opportunities of study and research to well-educated young Italians. It is the scholarship of our professors, however, that has set them on the path of research; yet the budgetary circumstances of our learned institutions prevent them from undertaking research therein.

The problem is inseparable from the shortage of teaching staff in the Italian University. It is calculated that in the academic year 1952–3 (the most recent for which exact figures are available, but circumstances have not altered much between then and now), the universities in Italy had 4,495 professors, including full professors and associate professors (*professori di ruolo* and *professori incaricati*), for 138,814 students regularly enrolled and another 84,708 'external' students (*fuori corso*). This means an average of one professor for every forty-nine students.

Nor can it be said that there are sufficient teaching assistants to share with professors the supervision of students. Once again, for financial reasons the number of assistants is very limited; and no matter how the economic position of the assistants and their career prospects are improved, there will still be plenty to do to solve the question of the assistants' position. While we are on this subject it is appropriate to add that the proportion of university full professors (*professori di ruolo*) to associate professors (*professori incaricati*) is as follows: about 1,896 full professors as against approximately 4,000 associate professors.

Finally, one of the most serious problems on the economic side is that of university attendance. The majority of university students cannot study in the cities where the universities are. This situation is well-nigh universal in the Faculties of Arts (*lettere*), Law and Administration (*giurisprudenza*), Political Science, Elementary Teacher Training, and so on. It is a little more under control in the Faculties of Science, where, particularly in some disciplines, attendance at lectures and practical work seem indispensable. Nevertheless, even in these Faculties (such as Engineering and Medicine) there are a number of students who arrive in town on the day of the examination, only to leave the following morning.[2] There is no point in dwelling on the disadvantages of such a situation. The economic situation in Italy is such that it is, or could be, possible to give a considerable number of scholarships to students, or free board and lodging, and to establish university colleges and student hostels. Within strict limits something is actually being done for the junior teaching staff. But it really is a case of extremely narrow limits, because we need to help no fewer than fifty thousand students. There is no lack of proposals for working out a scheme of university loans, to be repaid by instalments when the students have qualified and begun their careers. However, up to now nothing has been definitely decided.

---

[1] Rate of Exchange, 1,750 *lire* (approx.) = £1 = $2.80.

As is clear from the personnel, which is certainly reduced to a minimum, the problems weighing on the Italian University are critical. The country is concerned about them, and they have been under review on more than one occasion. More than one solution might already be appropriate according to our experts; but at present there has been no opportunity to try any of them. Chances are rare, and hard to seize, in a parliamentary government whose majority is small, and where the margin of safety does not really justify proceeding from theory to action. Will it always be so in years to come?

LUIGI VOLPICELLI.

---

[2] University faculties in Italy consist of the following: Mathematical Sciences; Physics; Natural Sciences; Industrial Chemistry; Pharmacy; Medicine and Surgery; Engineering; Architecture; Fine Arts; Agriculture; Veterinary Science; Law and Administration (*giurisprudenza*); Political Science; Commerce and Economics; Statistics; Navigation (*istituto navale*); Oriental Studies; Arts and Philosophy; Elementary Teacher Training (*magistero*).

The most popular faculties are the following: Law and Administration; Commerce and Economics; Medicine and Surgery; Arts and Philosophy. Next come the Faculties of Science, Agriculture, and the rest.

The university cities number twenty-eight. That is too many. It is true that many have only one or two faculties. The largest Universities are those of Turin, Milan, Genoa, Pavia, Padua, Bologna, Florence, Rome, Bari, Catania, Palermo, Cagliari. In addition to the State Universities there are also others called 'free', i.e. private. The biggest is the University of the Sacred Heart in Milan.

Organization of Institutions of Higher Education in Lebanon

THE institutions of higher learning in the Lebanon may be classified into four different groups. If arranged according to the date when the senior institution of each type was established, they are [1]:

(1) American:
  (A) The American University of Beirut.
  (B) The Beirut College for Women.
  (C) The Near East School of Theology.
  (D) The Middle East College.
(2) French:
  (A) The *Université de St. Joseph.*
  (B) The *École Supérieure des Lettres.*
  (C) The *Centre d'Études et des Recherches Mathématiques et Physiques.*
(3) Private National:
  The Lebanese Academy.
(4) State:
  The Lebanese University.

These nine institutions are all located in Beirut, the oldest of them being the American University of Beirut and the youngest the Lebanese University. The institutions listed under (1) and (3) are discussed by the writer. [The Editors had hoped to include another writer's comments on institutions under (2) and (4); the text was not, however, available.]

AMERICAN

(A) *The American University of Beirut*

The American University of Beirut includes two affiliated institutions: the American University proper, which offers advanced work including professional education, and International College, which offers pre-university work. These two institutions are located together in Beirut, the precincts comprise about seventy acres of land and fifty buildings, although the latter institution will be moved before long to a site in the suburbs of Beirut. While each of them possesses a separate endowment fund and a separate board of trustees, they both operate now as one administrative unit. For the purpose of the present article only the university proper will be taken into consideration.

---

[1] The majority of these institutions are degree granting.

(*a*) The Near East School of Theology grants a diploma or a certificate, but its diploma candidates, on taking an arts course at the American University of Beirut or the Beirut College for Women, may obtain a B.A. degree from either, as well as the diploma of this school.

(*b*) The *École Supérieure des Lettres* and the *Centre d'Études et des Recherches Mathématiques et Physiques* grant certain diplomas which are recognized towards the *Licence* in French universities.

Historical Background

In 1862 the American missionaries of Syria,[2] having succeeded in promoting elementary and secondary education in that region, felt that some attention should be given to higher education, which was urgently needed. It was decided that one of them, Dr. Daniel Bliss, should withdraw from the evangelical work of the mission in order to found an institution of higher learning which would be administered independently and maintained by its own funds. Accordingly Dr. Bliss travelled to the United States, and within two years raised $100,000; but because of the inflation during the Civil War period it was decided to hold this money intact until conditions improved, and to raise another sum in England to set the work going.

In 1866 the new institution, chartered by the Board of Regents of the University of the State of New York and initiated by generous English subscriptions, opened its doors to a class of sixteen students. It was first known by the name of the Syrian Protestant College; in 1920 it was granted university status and renamed the American University of Beirut. During these ninety-two years of its existence this institution has been fortunate to have had good leadership from five presidents, the last being Dr. J. Paul Leonard, whose inauguration took place in the summer of 1957.

Organization and Degrees

The university is composed of four faculties, each including one or more schools or programmes of study. While non-degree courses are offered by these faculties, the emphasis is on degree programmes.

(1) *Faculty of Arts and Sciences* (established in 1866)

(*a*) *Undergraduate Studies*

The regular course of this faculty covers a period of four years (freshmen, sophomore, junior, and senior) beyond an American high school graduating certificate or its equivalent. Generally speaking, such certificates as the Lebanese *Baccalaureate* Part I, the French *Baccalaureate* Part I, or the London General Certificate of Education (Ordinary level) are regarded as equivalents, subject to certain conditions. The degrees granted are: Bachelor of Arts (B.A.), Bachelor of Science (B.S.), and Bachelor of Business Administration (B.B.A.).

---

[2] The term 'Syria' was used in those days to denote the area later divided into Syria, Lebanon, Palestine, and Transjordan.

In conjunction with the Near East School of Theology in Beirut, this faculty offers a combined arts and theology programme extending over six years. Students who complete this programme are awarded a B.A. as well as a Diploma in Theology.

(*b*) *Post-graduate Studies*

The post-graduate course requires a minimum of one year beyond the regular course, and leads up to a Master's Degree in Arts (M.A.), in Sciences (M.S.), or in Business Administration (M.B.A.).

This faculty offers, in addition, non-degree programmes in business, in teacher education, and in English communication skills.

(2) *Faculty of Medical Sciences*

(*a*) *School of Medicine* (established in 1867)

The medical course extends over five years beyond the junior class of the Faculty of Arts and Sciences (pre-medicine programme) or its equivalent, and leads to the degree of Doctor of Medicine (M.D.). When followed by a year of internship, this training meets the requirements for an American 'Class A' medical school, as well as the Lebanese and Syrian government regulations.

(*b*) *School of Pharmacy* (established in 1871)

The pharmacy course represents four years of study and nine months of practical experience in an approved pharmacy after the completion of the freshman class (science programme). This training leads to the degree of Bachelor of Science in Pharmacy (B.S. in Pharm.).

(*c*) *The School of Nursing* (established in 1905)

The regular nursing course covers a period of three years' study and clinical experience beyond secondary school work, and leads to a Nurses' Diploma. A degree course is also offered which requires additional work in conjunction with the Faculty of Arts and Sciences and leads to the degree of B.S. in Nursing.

(*d*) *The School of Public Health* (established in 1954)

This school offers two one-year programmes: (*a*) an advanced programme of post-graduate studies intended for holders of university degrees, and leading to a diploma in some field of public health; (*b*) a non-degree programme of technical training intended for holders of secondary school or nursing school certificates, and leading to a certificate in sanitation, public health, or laboratory technology.

The *School of Dentistry*, established in 1910, was closed down in 1940.

(3) *Faculty of Engineering* (established in 1951)

The regular course offered by this faculty extends over a period of five years (four calendar years with three intervening summers) beyond the freshman class (pre-engineering programme) or its equivalent. The course leads either to the degree of Bachelor of Architectural Engineering (B.Arch.E.) or to the degree of Bachelor of Engineering (B.Eng.) for graduates majoring in civil, mechanical, or electrical engineering. The degree of Master of Engineering (M.Eng.) is granted to selected graduates on the completion of one more year of advanced work.

This faculty offers, in addition, non-degree programmes in technical training.

(4) *Faculty of Agricultural Sciences* (established in 1952)

The regular course of study offered by this faculty represents three years of study, with two intervening summers, beyond the freshman class (science programme) or its equivalent. The course leads to the degree of Bachelor of Science in Agriculture, and the Diploma of *Ingénieur Agricole*. The degree of Master of Science in Agriculture is granted to selected graduates on the completion of eleven months of advanced work.

This faculty offers, in addition, non-degree programmes in technical vocational training.

At the disposal of these four faculties there are three main academic services: the library, consisting of about one hundred and three thousand books (of which about one-third are in Arabic) and twenty thousand volumes of bound periodicals, and having subscriptions to over one thousand five hundred and fifty periodicals; the museum brings together distinctive Near Eastern collections dealing with archaeology, geology, botany, and zoology; the observatory serves as a weather and research station, as well as providing field training for astronomy majors.

Furthermore, the university provides ample opportunities and facilities for extra-curricular activities. There are about thirty student societies and clubs, and a newspaper managed and edited by students. The athletic programme is extensive and carefully supervised.

Student Body

Registration figures for the year 1957–8 showed a total enrolment of 2,177 students, 1,389 of whom were in the Faculty of Arts and Sciences, 387 in the Faculty of Medical Sciences, 285 in the Faculty of Engineering, and 116 in the Faculty of Agricultural Sciences. The policy of limiting enrolment has, for several years, kept the level of the student body at slightly above the two-thousand mark.

In the year 1956–7 the student body represented thirty-six different countries; but nearly 90 per cent of the students came from Arab countries, the Lebanon having the highest number, namely 896. Similarly, the students represented twenty different religious affiliations, nearly 61 per cent of them being Christian and the rest non-Christian.

Women students constitute a small minority, although the institution became co-educational in the year 1921–2. However, the number of women students has been steadily increasing from 12 in that year to 415 in 1957–8

In the summer of 1957, 425 students graduated: 271 from the Faculty of Arts and Sciences, 60 from the Faculty of Medical Sciences, 56 from the Faculty of Engineering, and 38 from the Faculty of Agricultural Sciences. All were granted degrees except thirteen nurses, who received only the Nursing Diploma. Out of the 425 graduates, 71 were women.

Aims

The American University of Beirut is devoted to the pursuit of truth and the promotion of intellectual, moral, and spiritual values. Being located at a meeting-place of Western and Near-Eastern civilizations, it aims to integrate the positive values of both civilizations. This broad aim may be regarded as a threefold one: education for leadership, the advancement of knowledge, and social improvement. In trying to achieve this threefold aim it hopes to measure up to its motto: "That they may have life and have it more abundantly."

(1) *Education for Leadership*

Throughout the various phases of its history, this institution has endeavoured to turn out good leaders who can make their influence felt throughout the Middle East, it being understood that leadership is not necessarily of a type of achievement, nor confined to the outstanding aspects of public life, nor is it necessarily accorded fame and given a high reputation. A good leader may be a famous surgeon or member of parliament, or he may simply be a teacher or agriculturalist in a far-away corner of his country.

The American University of Beirut has a fairly well-defined conception of the type of leader it tries to produce. First and foremost he should be a good man; hence the emphasis it places on character-building, on the appreciation that a higher education which fails to develop the affective aspect of the student's personality might do more harm than good. He should also be a good citizen; it has always been the policy of this American institution to exercise great care to prevent its students from becoming denationalized—to fit them for useful life in their own communities rather than to fit them for the American way of life. The belief is that sound nationalism is a prerequisite to internationalism.

Furthermore, a good leader should be concerned about social welfare and social service rather than self-aggrandizement and self-glorification; to this end the university seeks to inculcate in its students a sense of earnest concern for the well-being of their people and an earnest desire to contribute to their progress. A good leader should also be able to serve his people not only through competency in his particular field of specialization but also through a cultural awareness of community needs and a clear understanding of world affairs; hence the great need to provide students with a broad liberal education in the Faculty of Arts and Sciences before they enter any of the professional schools, as well as enriching their professional training with cultural content.

There can be no doubt that in the course of the ninety-two years of its existence the American University of Beirut has achieved this aim to a considerable extent. This may be seen by the extent of influence exercised by its graduates throughout the Middle East. During this period about fourteen thousand potential leaders have passed out of its gates—men and women with a breadth of vision, sense of civic responsibility, and a devotion to the fundamental values of human life. A large number of them have held important positions of public service and made a real contribution to social progress in various fields of human endeavour.

(2) *Advancement of Knowledge*

Like other good institutions of higher learning, the American University of Beirut regards research as one of its basic functions, not only as an end in itself but also as a means of enriching the teaching process and training students in proper methods of study and investigation.

The area which the university serves is rich in opportunities for research. Given the necessary funds and facilities, it is in a position to make valuable contributions in various fields of knowledge. While the funds and facilities available at the present time are not adequate, a limited amount of research has been carried out by the different faculties, which has recently been extended, thanks to the grants made by such foundations and agencies as Rockefeller Foundation, Ford Foundation, Rockefeller Brothers Fund, and others. Some of the results have been published in the last few decades, while others are awaiting publication. Following is a brief mention of the type of research work recently reported by the various faculties.

In the Faculty of Arts and Sciences, the Departments of History and Arabic have a research programme of interpretative studies of the modern Arab world; the Department of Economics has a research project on business legislation, oil and labour, fruit and vegetable marketing in the Middle East; the Department of Education has a research programme, some of its recent publications in Arabic being: *Educational Awakening and the Future of the Arab World*, *A Modern Philosophy of Education for a New Arab World*, *The Teaching of Arabic Reading to Beginners*. Other research programmes have been pursued by the Departments of Psychology, Sociology, Political Science and Law, Public Administration, Commerce, Chemistry, Physics, Biology, and Mathematics, which have resulted in books or articles.

In the Faculty of Medical Sciences research activities continue to be productive in many departments. Notable progress has taken place in the cardio-pulmonary laboratory and also in the field of endocrinology. A number of new radio-isotope techniques have been introduced, and valuable work on cardiac physiology and pharmacology, virology and neuro-anatomy has been continued.

In the Faculty of Engineering some research has been undertaken in connexion with the consulting services of the laboratories. Among other studies, an investigation is being made of the application of pre-stressed concrete techniques to construction problems in the area.

In the Faculty of Agricultural Sciences each faculty member is on approximately a half-time research basis and has under way a number of research projects. Some studies are ready for publication. One chief aim of research activities is to stimulate among the responsible leaders of agriculture in the area keen interest in research and deep appreciation of its requirements and values.

(3) *Social Improvement through Extension Services*

While the third aim as social improvement may be implied by the first two, it needs to be explicitly stated because of its unique nature. It is the definite policy of the American University of Beirut to study the basic needs of the region it serves and to do all it can to supply them through extension services as well as through normal university programmes. A recent presidential report concluded with these words: "The university cannot justify its continued existence solely because it has existed for nearly ninety years. It must continually analyse its services and the needs of the people it serves in order to continue to fulfil the functions which were the reasons for its establishment. It must perform services which cannot be provided locally but which are urgently needed for the spiritual, intellectual, social and economic development of the region."

By the nature of its situation as an institution of higher learning in an area which is undergoing rapid and radical social transformation, the university is called upon to perform many forms of service to governments, to private agencies, and to the public in general. Some of these services accord with its regular educational work; others do not, and are undertaken only for lack of other appropriate agencies and in the hope that they will not distract it from its basic functions.

For example, it co-operates with governments in training and recommending teachers, gives expert advice to business organizations, renders consulting services to various agencies, assists in the development of school curricula, organizes in-service training programmes, holds regional conferences, opens summer courses, runs evening classes, offers public lectures, and in every possible way promotes intellectual activities. These and similar forms of service show that the university is responding, as it should, to the needs of society and making no little contribution to its progress.

It is no exaggeration to say that, as the American University approaches its centennial anniversary, it can look back with satisfaction upon a long period of fruitful educational service, and can take delight in the realization that, through its preparation of leaders, its advancement of knowledge and its service to social improvement, it has contributed in no small degree to the renaissance of the Middle East in general and the Arab world in particular.

Control and Finance

The American University of Beirut is a private institution supported largely by the voluntary contributions of a large number of donors. While the idea of an institution of higher learning for the Middle East was a natural outgrowth of American missionary activity in Syria, and its founder was selected from the members of the American Mission Board; the institution once founded was never under the control of that board and the founder was released from his commitments to it.

Within three or four years the preliminary endowment funds were raised and a United States Board of Trustees was formed to take charge of them and to exercise supreme control over the institution. For some time a local supervisory committee was appointed to act as the connecting link between the board and the administration, but before long this committee was found unnecessary and the board began to deal directly with it through the president of the university.

The trustees are at present twenty-five in number, two of whom are prominent A.U.B. graduates of Lebanese origin. It was the original policy of the institution to introduce the native Arab element as fast as possible into professorial positions, and in recent years this element has also been introduced on to the Board of Trustees as well as into the local central administration. During the last few years, two of the three vice-presidents of the university have been Arabs, one from Syria and another from the Lebanon. The former had been acting president for nearly three years before the new president was appointed.

The president of the university, assisted by a representative senate, keeps in close touch with the Board of Trustees and annually submits to them a report. Occasionally he seeks personal contact with them by going to the States. In 1956, for the first time in the history of the institution, the board as a body paid it a visit and held a series of meetings on its campus.

In addition to the Board of Trustees, there is an executive body in the United States which handles fund-raising and other important functions. It is the Near East College Association, which was established for the purpose nearly forty years ago. As its name implies, this association manages the administrative affairs of the American University and International College in Beirut, as well as other American institutions of higher learning in other parts of the Near East.

The question of finance seems to be the predicament of all private institutions of higher learning. In the words of the last presidential report: "In these days of rapid inflation and rising costs, of increasingly complicated and expensive tools of learning and research, and of the growing power and resources of the state, private universities everywhere are finding it more and more difficult to obtain the necessary financial support from private sources and to keep their full independence in the formulation and implementation of their programmes. Such independence has been the foundation of their strength and the mainspring of their historical mission. If this is true of private universities in general, it is especially true of the American University of Beirut, which draws the larger share of its financial support from sources which are six thousand miles away and from a society different from the one it serves."

The university has a small annual income from its endowment and receives from its students a fair amount in fees, but these two sources of income, however substantial, are enough to meet only a small percentage of the total expenditure. The operating expense of the university is nearly four and three-quarter million dollars. Of this large sum the income from student fees amounts to about 11 per cent, and endowments to about 6 per cent, while the rest has to be met from gifts and grants, as well as from payments for the various services rendered by the university.

Furthermore, a large number of candidates who are qualified for higher education cannot afford to enter the university. To these, opportunities for financial assistance are available in the form of scholarships, grants-in-aid, graduate fellowships, and student employment. While the university has a special fund for the purpose, the larger part of this financial aid to students comes from non-university sources such as the International Co-operation Administration, the Ford Foundation, the Arab Governments, the University Alumni Association, and a fairly large number of individual scholarship funds. It is interesting to note in this connexion that tuition fees are only a small percentage of the actual cost of instruction. In the Faculty of Arts and Sciences they cover only 32 per cent of the actual cost; in the Faculty of Agricultural Sciences 4 per cent; in the Faculty of Engineering 15 per cent; and in the Faculty of the Medical Sciences 13 per cent.

Main Problems

It may be well to conclude this section of the article with a brief statement of the main problems which confront the American University of Beirut, constituting a challenge to which it must find appropriate response.

Of all the problems which face the university the financial is perhaps the most serious one. The institution has been developing steadily in response to social needs, especially in recent years when, thanks to the generous gifts and grants of a number of foundations and agencies, it has developed extensively in the types of programme it offers, in student enrolment, in equipment and physical plant. This naturally means that the operating expenses have increased greatly and that steady and adequate sources of income must be found if the institution is to continue fulfilling its threefold function normally and creditably.

There are also student problems. If the university is to keep on producing the quality of leadership which keeps abreast of the advancing times, it must continue to refine its methods of selecting and eliminating students, to provide them with the scholarships they need, to impose limitations on their enrolment, to improve the system of directing their curricular and extra-curricular activities, to channel their patriotic feelings into constructive national service, and, in view of the emancipation of women in many parts of the Middle East and the increasing demand for their efficient leadership, to expand still further educational facilities for women students.

Next comes the problem of the academic programmes offered by the university. In the process of development and expansion which the institution has recently undergone the professional faculties have had the greatest share. This being the case, what these faculties need most for some years to come is a period of consolidation. On the other hand, the Faculty of the Arts and Sciences, which is the core of the institution, remains in great need of development and expansion in both its undergraduate and its graduate offerings. The undergraduate studies need to be strengthened, not only to help enhance the work of the professional faculties but also to give the prospective leaders an all-round liberal education. The graduate studies should be developed to include the doctorate level of work in order to improve the quality of leadership provided, as well as to give the institution full-fledged university status.

Another problem which calls for serious consideration is research. If the university is to make worthwhile contributions to knowledge and properly train prospective research workers it must have ample funds which flow in with greater steadiness and certainty, as well as adequate plant and equipment which keep pace with the advancing times.

Finally, there are problems connected with the faculty. Needless to say, an institution of higher learning is in a position to fulfil its educational mission only if it is fortunate in the possession of select teams of competent and devoted faculty members. While the American University of Beirut has been to a considerable extent fortunate in this respect, it must continually be on the alert and redouble its efforts to attract, maintain, and develop the most qualified type of faculty, so as to be able to respond to its manifold challenges ever more effectively and creatively. It must continue to improve its employment terms, to ameliorate its housing conditions, to adjust its salary scale, to ensure its retirement allowances, to refine its social climate, and in every way possible make professorial work more attractive.

These are some of the outstanding problems which constitute a challenge to the university as it approaches the launching of its new ten-year plan. Upon the wisdom of its response to this challenge will depend, to a great extent, its welfare in the years to come.

(B) *Beirut College for Women*

Historical Background

The Beirut College for Women, formerly called the American Junior College for Women, was founded in 1924 when a freshman college course was offered at the American School for Girls, one of the oldest girls' schools in the Arab East. The college was established under the auspices of the Board of Foreign Missions of the Presbyterian Church in the United States of America. A Board of Trustees appointed by that body is responsible to the Board of Regents of the State of New York for the standards of the college.

In 1933 the college was transferred from rented buildings to its own precincts, beautifully situated on a hillside and comprising five acres of land and six major buildings. Around the middle of the century it was transformed from a two-year junior college to a full four-year college, and chartered by the New York State Board of Regents with authorization to grant degrees.

Organization and Degrees

The Beirut College for Women offers a two-year course leading up at the end of the sophomore year either to the degree of Associate in Arts or to the degree of Associate in Applied Science, and a four-year course leading up at the end of the senior year either to the Bachelor of Arts degree or to the Bachelor of Science degree.

(1) *The Two-year Course*

The course which leads to the Associate in Arts degree is either in arts or in science, and is intended for students who expect to work in their junior and senior years for the Bachelor of Arts or Bachelor of Science degrees. Women students who are candidates for the Certificate of the Short Course for Women at the Near East School of Theology in Beirut may qualify for the Associate in Arts degree in a combined three-year course of study.

The course which leads to the Associate in Applied Science degree is a short commerce course. Students who wish to pursue their commercial studies further can work for the degree of Bachelor of Business Administration at the American University of Beirut. Graduates of the School of Nursing of this university may obtain the Associate in Applied Science degree by taking a year's work in certain prescribed subjects at the college.

(2) *The Four-year Course*

The course which leads to the Bachelor of Arts or Bachelor of Science degree includes the following six major fields of concentration:

(*a*) Literature and Fine Arts. Literature may be concentrated in either the English or the Arabic language, and continue with either music or art.

(*b*) Education-Psychology.

(*c*) Euthenics (Home Economics). The euthenics major includes two general fields of specialization. One of these is child development and family relations; and the other nutrition, home management, and textiles.

(*d*) General Science-Mathematics.

(*e*) History-Politics.

(*f*) Social Work.

While there is some professional training in the education-psychology and social work majors, the total programme is that of a liberal arts college.

Extension courses leading to both the Associate in Arts and the Bachelor of Arts degrees are offered to women who are unable to attend day classes. In addition, the college offers series of public lectures.

The college has a number of academic services: the library, which is rapidly expanding to meet the growing needs of the institution; the nursery school, which provides laboratory experience for students taking courses in child development; the audio-visual centre, which is of great service to classes in audio-visual education; and the radio studio, which is used for radio classes and in the production of community broadcast programmes.

Furthermore, the college provides ample opportunities and facilities for extra-curricular activities. There are about fifteen interest groups and student organizations, and each student is expected to join at least one of them. There are also four student publications: a newspaper, a magazine, a year book, and a periodical of creative arts. Athletics and all sorts of recreational activities are greatly encouraged.

Student Body

Since its foundation in 1924, the Beirut College for Women has grown at a rapid pace in many respects. The following record of student enrolment is an indication of the increasing demand for higher education of women in this part of the world: in 1924, 3 students; in 1931, 68; in 1941, 102; in 1951, 283; and in 1957, 450. This last number brings the college to its highest possible enrolment figure in relation to its present physical capacity.

The student body represents sixteen different countries, but its core comes from the Arab countries. The religious groups represented include practically all the religions and sects of the Middle East.

In recent years an average of 150 women a year have graduated from the college. In the summer of 1957, 178 students graduated with college degrees as follows:

(i) B.A. and B.S.: Total, 66 students; made up of: Lebanese, 33; Jordanian, 8; Palestinian, 12; Syrian, 4; American, 2; Greek, 1; Iranian, 1; and Iraqi, 5. Their religious affiliations were: Christian, 34; Moslem, 26; and Druze, 6.

(ii) A.A. and A.A.S.: Total, 112 students; made up of: Lebanese, 67; Jordanian, 14; Palestinian, 8; Syrian, 13; British, 2; Iraqi, 5; Greek, 1; Iranian, 1; and Egyptian, 1. Their religious affiliations were: Christian, 64; Moslem, 44; Druze, 2; and Jewish, 2.

Purpose

The purpose of the Beirut College for Women is to offer a liberal arts education to those who have completed their secondary school education and are qualified to go on into higher education.

Its programme of courses and its activities and facilities are designed to prepare women to assume their place of responsibility in the modern world as mothers, wives, professional women, and community leaders.

Emphasis is placed on the cultural and spiritual development of each student and on fostering mutual understanding and friendly relations as they apply to the family, the community, the nation, and the world. It is the policy of the college to keep the enrolment small enough to make possible a personal relationship between faculty and students.

In the thirty-three years of its existence this institution of higher learning has undoubtedly lived up to its aim by sending forth young women who have proved to be competent, enlightened, and inspired with high ideals. The Alumnae Association of the College has approximately one thousand five hundred graduates on its mailing-list.

Control and Finance

The college is under the immediate direction of a Board of Managers consisting of representatives of the Syria–Lebanon Mission, the alumnae of the college, the American University of Beirut, and the Arab Evangelical Church. This board is responsible to the Syria–Lebanon Mission, which is in turn responsible to the Presbyterian Board of Foreign Missions in the U.S.A. A Board of Trustees, composed of members of the Board of Foreign Missions, functions as the body representing the college before the Board of Regents of the University of the State of New York for the granting of degrees.

The president and academic dean are *ex-officio* members of the college Board of Managers.

The internal administration of the college is under the direction of the president, with the academic dean and the dean of students and faculty. Between meetings of the faculty in legislative session, a Faculty Council is authorized to act for the faculty.

The over-all student organization is the Student Government Association, whose representative body is the Student Council, which meets weekly to hear reports of student activities, to discuss student affairs, and to make recommendations to the administration. Representatives of classes, clubs, and the residence hall are present to take reports back to their respective organizations. The four classes are organized. There are several clubs organized on the basis of interest. There is an upper-class honorary group whose members are elected on the basis of scholarship and of service to the college. Their function is to guard the traditions of the college, to promote student scholarship and honesty, to build morale, to promote loyalty, to increase opportunities for student participation in the extra-class life of the college.

In the year 1957–8, which was a normal year, 86 per cent of the income to the college was from student fees. The balance was made up from board appropriations, alumnae, an American oil company, and special gifts.

The college has no endowments.

Main Problems

The main problems of the college at the present time are a direct result of inadequate dependable income. The heavy turnover in teaching and staff personnel is due to inadequate salaries and social security. In the interest of stability and quality of instruction a larger core of highly qualified teaching faculty on permanent tenure is needed.

Also funds for a comprehensive programme of research are seriously needed in the areas of euthenics and social work.

The library facilities need to be greatly expanded.

These all require financial support beyond what the college now has.

College Future

As a fully accredited institution of higher learning for women in the Middle East area, it has a tremendous educational responsibility. Having the respect and good will of the departments of education in all the Arab states, covering the whole geographical area of the Middle East, penetrating every level of society, and meeting a felt need in every religious community, it is unique in its educational opportunities.

(C) *The Near East School of Theology*

Historical Background

In its lineal descent, the Near East School of Theology in Beirut represents over a century of service in the training of religious leaders offered in different cities of the Near East. Strictly speaking, however, this institution came into existence only a quarter of a century ago with the union of the School of Religion in Athens and the School of Religious Workers in Beirut, the latter having existed under different names and in various centres of the Lebanon since the thirties of the nineteenth century, when American missionary work was being established in this part of the world.

It was in 1932 that the two schools were united into one institution of higher learning which was then named the Near East School of Theology, and the American Board of Commissioners for Foreign Missions and the Board of Foreign Missions of the Presbyterian Church in the U.S.A. became jointly responsible for the conduct of the new institution. In 1945 the Evangelical Synod of Syria and the Lebanon and the Union of Armenian Evangelical Churches in the Near East, and in 1950 the Arab Evangelical Episcopal Community of Jordan and Lebanon, became co-operating bodies. These five church bodies have since been represented on the Board of Managers.

Courses of Study

The Near East School of Theology offers three undergraduate courses of study leading respectively to the diploma of the school, the certificate, and the certificate of the short course. The first two courses are open to men and women, while the third is intended for women. Students may be candidates for the diploma or the certificate in either theology or Christian education. In addition to these courses, the school offers a graduate course.

(1) *Diploma Course*

The regular course of study leading to the diploma in theology or Christian education requires three years for students holding the B.A. degree. However, it may normally be covered in four years by students entering as seniors or juniors, and in five years by students entering as sophomores; during this period, candidates are also expected to fulfil the requirements for the B.A. degree from the American University of Beirut or the Beirut College for Women.

(2) *Certificate Course*

The certificate course is offered to students who are unable to take the diploma course, but who wish to prepare themselves for full-time Christian service. It extends over a period of three years beyond the freshman year or its equivalent, and its curriculum is similar to that of the diploma course except for the omission of university work.

(3) *Short Course for Women*

This course extends over three years for students entering the freshman class or two years for students entering the sophomore class. It leads to the Associate in Arts degree of the Beirut College for Women, as well as the Certificate of the Short Course for Women of the Near East School of Theology.

(4) *Graduate Course*

The institution also offers to its own graduates, as well as to graduates from other theological schools, facilities for advanced study and research adapted to individual needs. Pastors and other religious workers are encouraged to do one or more years of study in some particular field. Such students may be granted a Certificate of Graduate Study upon the satisfactory completion of two semesters of resident study, and the writing of a satisfactory thesis on some subject pertinent to their studies and with practical application to their work.

In connexion with its regular programmes, the Near East School of Theology has a library containing over twenty-one thousand volumes; at the same time its students have the privilege of using the library of the American University of Beirut. There is also a chapel which provides an opportunity for private devotion and practice preaching. Field work is considered an important and regular part of the school curriculum, and is made available to all undergraduate students, thus offering them training in church work and giving the neighbouring churches some help in their various activities.

In addition to its undergraduate and graduate courses the institution engages in different types of extension work. It offers evening seminar courses in the practical field for the benefit of laymen as well as religious workers. It holds conferences and summer classes which bring together ministers and other religious workers of different denominational and language groups for intellectual stimulation and fellowship. It organizes annually a spring institute for its own graduates, as well as for other pastors and religious leaders in different parts of the Near East, and invites to it a guest leader of world-wide fame to lecture and to guide the thinking of the group into new channels.

Student Body

Registration figures for the last five years show a total enrolment of ninety-one students. Out of this number twenty-one are women. These students represent some seven religious affiliations and eight different countries; namely, Lebanon, Syria, Jordan, U.S.A., France, Turkey, Iran, and Iraq. The great majority come from the first three Arab lands.

Throughout its history the institution has opened its doors wide to all candidates, regardless of race, nationality, or religious affiliation. It has welcomed Greeks, Bulgarians, Armenians, Arabs, and Turks; be they Greek Orthodox, Armenian Orthodox, or Evangelicals; Arab Presbyterians or Anglicans; Congregationals, Nazarians, or Quakers. The Near East School of Theology is an international and an interconfessional institution.

In the summer of 1956 there were four graduates, two being Lebanese and two Syrians. In the summer of 1957 there were three graduates, coming from Syria, Jordan, and Turkey.

Purpose

The purpose of the Near East School of Theology is to train religious leaders for the churches and Christian schools of the Near and Middle East at the undergraduate and graduate levels.

As an international and interconfessional institution it makes no distinction in terms of race or ecclesiastical affiliation. It welcomes not only candidates preparing for professional Christian service, but all those who sincerely desire to share its facilities for Christian fellowship and study. It aims to be more ecumenical, seeking to serve a larger area and to co-operate with a larger number of churches, especially the ancient churches.

At the close of a quarter of a century of its existence, the Near East School of Theology can look back with satisfaction upon a period of useful service. A good number of its graduates hold responsible positions as ministers, leaders, evangelists, and social workers.

Control and Finance

The governing body of the Near East School of Theology is a local Board of Managers consisting of ten members. Each of the five church bodies which support the institution appoints two members. Added to these ten is the principal, who acts as *ex-officio* member.

The Board of Managers appoints the principal and faculty members, approves the budget, and is responsible for the operation of the school.

Financially the institution is supported by these five church bodies, but mainly by the two missions—the American Board and the Presbyterian Board. Each board supports two faculty members, one American and one national, and also gives scholarship aid towards the support of students. The three other bodies supply scholarships and contribute towards the general budget.

Challenging Problems

At this stage of its development the Near East School of Theology feels more than ever the challenge for a more effective service. With a rapidly changing society and great progress in every walk of life in the Near East, there is a great need for better leadership in the churches as well as in the communities. Therefore a larger enrolment, a larger faculty, better physical facilities and equipment, and consequently an expanded budget are of prime importance.

In view of these needs one major future plan is the relocation of the school near the American University and the Beirut College for Women. This plan will ensure closer co-operation with these two institutions and will also give their students a better chance to get the benefit of courses in theology and Christian education. Wider co-operation with the ancient churches is also being contemplated. Ecumenical co-operation is within the scope of the school, and to plan along this line for a wider and more efficient service in the Near East is a prime objective which it pursues with faith.

(D) *The Middle East College*

Historical Background

The Middle East College was founded in 1939 in Beirut by the Seventh-day Adventist Mission, and was at first called the *École Adventiste*. Later its curriculum was expanded to include professional training for Christian service in the Middle East, and its name was changed to the Adventist College of Beirut.

In 1944 a beautiful site of seventy acres was purchased on the foothills about five miles from Beirut, and soon construction was started with a view to transferring the college to its own precincts. In course of time more land was purchased and more buildings were erected.

In 1946 the institution was reorganized and renamed the Middle East College. At present its physical plant comprises an administration and instructional building, a teacher education laboratory school, two main dormitories, dining service, a laundry, cottages for married students, a college store and bakery, a gasoline service, a vocational and maintenance building, a music studio, a radio recording studio, faculty homes, and farm and poultry buildings.

The Middle East College has a secondary school operated under the same administration. It consists of the top four classes and offers two programmes: one designed for students who wish to enter college, and the other for those who plan to start work at the end of the course. For the purpose of this article the pre-college work will be excluded.

Dr. T. S. Geraty presides over the whole institution.

Organization and Degrees

The Middle East College offers a two-year programme in secretarial science or in elementary education, and a four-year programme leading up to the Bachelor of Arts degree, in history, religion, English, business administration, or in education. In either case, the requirement for admission is the completion of an accredited secondary school course.

(1) *The Two-year Programme*

This is a brief terminal programme intended for students who plan to leave college at the completion of the sophomore class. Two courses are open to them, one preparing them for secretarial work and the other for elementary school teaching. On graduation they receive certificates.

(2) *The Four-year Programme*

This programme, which leads to the Bachelor of Arts degree, comprises for each student a major field of specialization, combined with courses elected from one or more minor fields related to it. Both major and minor fields are selected from the following six divisions of instruction:

(*a*) Religion and Biblical languages.
(*b*) Applied arts.
(*c*) Social sciences and fine arts.
(*d*) Education.
(*e*) Languages and literature.
(*f*) Science and mathematics.

Apart from the regular divisions, the Middle East College has an extension division which offers courses by correspondence to those who cannot take such courses in residence.

The college also has a number of academic and cognate services, among which are the library, which contains over four thousand Arabic and English volumes; the radio recording studio, which is used for recording voice and music used in radio broadcasts; the Middle East press, which as a sister institution serves for printing school publications and affords vocational training in the graphic arts; the college service centre, which, with the bakery, store, and gasoline pump, helps to serve the school family and local community; and the Arabic elementary laboratory school, which functions as a service to the community and as a training centre for teacher education.

Furthermore, the college also encourages student participation in extra-curricular activities and organizations. There is an overall student association which sponsors a variety of social and recreational activities; there are several residential, instructional, and service clubs. There are welfare groups engaged in various social services; and there are two student publications: an annual year book and a monthly college paper.

Student Body

The great majority of the students of the Middle East College come from Egypt, Iran, Iraq, Jordan, Lebanon, Syria, and Turkey. Present boarding and housing facilities accommodate about 100 students, although the total enrolment ranges from 110 to 125 students. Of these, half are in the college proper, and the rest are in the secondary school.

Most of the students have a daily study-work programme. Campus work and departmental labour, including meals, dining service, laundry, industries, and maintenance, and practically all other services, are accomplished by student participation.

In June 1957 there were fourteen graduates. Out of these, three were granted certificates in secretarial science or elementary education, and eleven were granted Bachelor of Arts degrees in business administration, education, or in theology.

Aim

The aim of the institution may be expressed in terms of harmonious personal development and of all-round socio-economic efficiency. In terms of personal development it endeavours to develop its students physically, by giving them an intelligent understanding of the principles which govern the functioning and proper care of their bodies; intellectually, by helping them to form habits of accuracy, discrimination, sound judgment, and creative thinking; aesthetically, by fostering in them an appreciation for the best in literature, in nature, in music, and in the fine arts; and morally and spiritually, by leading them to the acceptance and practice of those concepts which are approved by the enlightened conscience of mankind and by kindling their hearts with the realization that religion is the soundest basis for moral and ethical principles.

In terms of socio-economic efficiency the institution seeks to develop its students socially, by cultivating in them an appreciation for, and practice of, the social graces at home and in their communities; in civic matters, by giving them an intelligent understanding of the principles of government and inculcating in them a willingness to accept the responsibilities of citizenship; and vocationally, by cultivating in them a sense of the dignity of labour and of financial responsibility, and imparting an adequate proficiency in a productive self-respecting occupation.

There can be no doubt that throughout its existence this institution of higher learning has lived up to its aim, and sent out to the countries of the Middle East men and women of sound character who have rendered valuable services to their communities.

Control and Finance

The Middle East College is one of hundreds of educational institutions throughout the world under the general supervision of the Educational

Department of the General Conference of Seventh-day Adventists, Washington, D.C.

Responsible to this educational department for the supervision of the Middle East College is a Board of Trustees consisting of fourteen members, three of whom are *ex-officio* members; namely, the president of the college, the dean, and the treasurer.

The Board of Trustees convenes in full session once a year. Acting for it in the management of the college throughout the year is an executive committee composed of ten out of the fourteen members of the board, including the three *ex-officio* members.

The college holds a permit issued by the Ministry of Education of the Lebanese Republic authorizing it to offer secondary and college courses.

Church membership throughout the countries of the Middle East determines the constituency of the Middle East Division of Seventh-day Adventists. An annual operating budget is adopted, and annual appropriations are dispatched to the Middle East College. The fiscal year is July 1st to June 30th, inclusive. Student expenses are subsidized by gifts, regular appropriations, and special donations.

Productive student labour is organized on a work-department basis in harmony with six elaborate financial-and-work programmes. Such labour helps the students to defray school and living expenses.

Challenging College Problems

The college is faced continually with a challenge in curriculum and research to offer instruction and facilities adapted for the differing individual and societal needs of students from various countries of the Middle East.

An audio-visual library, and home economics and science equipment and facilities are needed to meet student needs more adequately. Teacher education and subject-content areas are receiving currently emphasis in in-service education.

The Middle East College endeavours, with its work programme, to develop manual skills and an attitude of respect for labour; with its academic programme, a challenging and stimulating environment for individual growth; and with a cultural, social, and spiritual atmosphere, opportunities for character and personality development.

PRIVATE NATIONAL

The Lebanese Academy

The Lebanese Academy (previously of Fine Arts), the only national private institution of higher learning in the Lebanon, was founded in 1937. The Lebanese University, established about fifteen years later, is a state institution.

In its modest beginnings the Lebanese Academy confined its activities to the fine arts; but now it is mainly concerned with liberal and professional education, and is therefore referred to as the Lebanese Academy. It consists of the following six schools:

(1) School of Music and Dramatic Art.
(2) School of Painting and Sculpture.
(3) School of Architecture.
(4) School of Literature and Social Sciences.
(5) School of Politics and Economics.
(6) School of Law.

In addition to these schools, the academy has a preparatory class to which holders of the *baccalaureate* certificate Part I are admitted and prepared for the Part II Certificate Examination. Candidates for the School of Architecture may take during this preparatory-year additional courses in mechanical drawing.

Strictly speaking, only the last four schools, concerned with liberal and professional education, may be regarded as institutions of higher learning. For the purpose of the present article, therefore, only these four will be considered.

Historical Background

It is interesting to note how the Lebanese Academy came into existence. Its early beginnings go back to 1937, when an association of amateur musicians was formed for the purpose of developing interest in classical music. In 1939 the association started giving advanced courses in music and musical composition. This action, however, gave rise to protests from certain groups, who tried hard to nip its educational enterprise in the bud on the grounds that it had not a government licence to teach. If it were to secure official recognition as a teaching body one of the members had to assume responsibility. The challenge was too strong, and for a while there was a good deal of hesitation. At last a young man of vision and conviction took it upon himself to carry on with the project. He was an engineer and a musician, Mr. Alexis Boutros by name, who was the founder of the association and later became the president of the academy. In fact, both the creation and the growth of the institution were largely due to his devoted efforts.

In 1941, when the Lebanon was still a mandated territory, an application for the establishment of an Academy of Fine Arts was submitted to the Lebanese Government; and in 1943, only a few months before the Lebanon attained her independence, the licence was granted.

In that same year, the Schools of Painting and Sculpture and of Architecture came into existence, while music and dramatics expanded. In the following year the Ministry of Education decreed that its examinations be under the supervision of this Ministry and that its diplomas bear the Minister's signature.

In 1948 a liberal arts school was added to the institution, namely, the School of Literature and Social Sciences. The Ministry of Education welcomed this addition, as it contributed to the preparation of teachers for the rising state secondary schools. Practically all its students that year were government bursars.

In 1949 the School of Politics and Economics was established to meet an urgent need. A fairly large number of students from the Lebanon and other Arab countries were anxious to prepare themselves for public service through the medium of their mother tongue.

In 1953 the School of Law, the most recent addition to the academy, was established in response to another urgent need. When the French Mandate came to an end in 1943, Arabic alone became the official language of the Lebanon, and lawyers were no more allowed to plead in French. In the Faculty of Law of the Jesuit University of St. Joseph, French was the medium of instruction, and candidates who had not mastered the French language were naturally not admitted. Hence the need for a School of Law in which Arabic was the main language of instruction, with either French or English as subsidiary languages. The significance of this last expansion of the academy lies in its opening the doors, for entry into the legal profession and into key state positions, not only to men and women who have had a French educational background, but also to those who have had a national or an Anglo-American one.

Organization and Degrees

Out of the four liberal and professional schools under consideration, the School of Architecture grants only a higher diploma, while the three others are fully-fledged degree-granting institutions.

(1) *School of Architecture*

The course offered by this school is modelled on that of the School of *Beaux-Arts* in Paris. It covers a period of five years beyond the *baccalaureate* certificate Part II or its equivalent, and leads to the *Diplome d'Architecte*. However, students of the preparatory class of the academy who take additional work in mechanical drawing may complete the course in four years only. Admission is usually limited to the students of this preparatory class who pass an entrance examination, in addition to obtaining the *baccalaureate* certificate Part II.

The medium of instruction in this school is French.

(2) *School of Literature and Social Sciences*

The course offered by this school covers a period of three years beyond the *baccalaureate* certificate Part II or its equivalent, and leads to a *licence* degree. Fields of specialization include philosophy, history, geography, and Arabic literature, great attention being given to social problems related to the Middle East in general and the Arab East in particular.

The languages of instruction used in this course are Arabic and French. Those who complete it satisfactorily are qualified to teach the *baccalaureate* classes in the secondary schools. Due to the shortage of schools using English as a medium of instruction, the academy is planning to introduce English instead of French.

(3) *School of Politics and Economics*

The regular programme offered by this school represents three years beyond the *baccalaureate* certificate Part II or its equivalent, and leads to a *licence* degree in politics and economics. However, if certain commercial courses (general and applied) are substituted for the regular courses in political science, the programme leads to a *licence* degree in economics and commerce. In either case, emphasis is usually placed on social problems related to the Middle East and particularly the Arab East.

Arabic is the medium of instruction in this school, while a minimum of one European language—English or French—is required for admission. The courses are offered in the evening so as to enable men and women in service to attend them. To obtain the *licence*, students are required to write a thesis on an economic or political problem pertaining to the Middle East.

(4) *School of Law*

The course in law covers a period of four years beyond the *baccalaureate* certificate Part II or its equivalent, and leads to a *licence* degree in law.

The medium of instruction is Arabic, but some courses are given in English or in French. At least one of these two languages is required for admission.

In addition to the regular programmes offered by these four schools, the academy offers extension services to the public. It gives series of lectures, provides exhibitions, and issues publications. Its choral and orchestral ensemble (150 participants) gave its hundredth oratorio concert at Christmas, 1957. Its library, containing eight thousand volumes and three hundred classical records, is accessible to the public as well as to the student body.

Student Body

Since its foundation, the Lebanese Academy has undergone rapid growth in many respects. Student enrolment is one indication of this growth. The accompanying table shows the numbers of men and women enrolled since 1953-4.

Student Enrolment at the Lebanese Academy

	1953–4		*1954–5*		*1955–6*		*1956–7*		*1957–8*	
	Men	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*
School of Architecture	28	4	51	7	82	2	94	2	110	1
School of Literature and Social Sciences	34	17	22	16	14	10	5	3	1	1
School of Politics and Economics	76	4	61	4	64	7	88	9	91	4
School of Law	49	—	65	1	75	1	83	5	71	3

Most of the students are Lebanese, the rest come from Syria, Iraq, Jordan, and Egypt. A large proportion of the students registered in the School of Law and the School of Politics and Economics are government officials in service.

In the summer of 1957, fifty-seven students graduated from the Lebanese Academy: nine from the School of Architecture, fourteen from the School of Literature and Social Sciences, eleven from the School of Politics and Economics, and twenty-three from the School of Law. Of these graduates, eight were women.

Aim

The Lebanese Academy aims to take the best that Western civilization and culture can offer and to combine it, through the medium of the Arabic language, with the best that an Eastern civilization and culture has, with a view to promoting social progress in the Lebanon as well as in the other Arab countries.

As a national institution it desires to create a link between the two streams of higher education in the Lebanon, the Latin on the one hand and the Anglo-Saxon on the other. In all fields of its activities it does not seek to duplicate what is being done by other institutions, but rather to complement it by exploring untrodden fields of cultural service.

In art education the academy hopes to help the youth of the country to appreciate the abiding values of Western culture, and thus expose them to a civilizing influence of paramount importance. In liberal and professional education it hopes to prepare them for a life of useful citizenship and efficient leadership.

There can be no doubt that in the twenty years of its existence the Lebanese Academy has lived up to its aim and has sent forth into the Arab East men and women who are rendering valuable services to their own communities.

Control and Finance

The Lebanese Academy is under the direction of an Administrative Board consisting of the president, vice-president, general secretary, and the deans of the six schools, together with two Lebanese leaders acting as counsellors.

The Ministry of Education gives the academy all possible financial and moral support. It has recommended that the institution be recognized by the Lebanese Government as a public utility. It supervises its final examinations, it grants and signs its degree and diplomas, it gives it an annual subsidy, and makes it possible for its graduates to practise their professions in the Lebanon and to occupy positions of responsibility in the government.

Main Problems

The Lebanese Academy finds itself face to face with serious problems which must be solved in the near future if it is to continue making its contribution to higher learning in the Arab East.

The most serious problem which confronts it as a private institution is financial. Needless to say, student fees meet only a small proportion of running expenses. It is true that the Ministry of Education gives an annual subsidy, but this cannot be substantial enough to meet the growing needs of the institution.

Secondly, the present physical plant of the academy is most inadequate. Not only does it lack sufficient space to accommodate the six schools, but it is almost dilapidated.

Thirdly, the academy is in great need of modern furniture, equipment, and teaching aids of all sorts. Its libraries and laboratories, in particular, are far from satisfactory.

Finally, there is the problem of research and the extension services. At the present time there are neither the funds nor the facilities for the promotion of research or the broadening of such extension services as concerts, lectures, publications, and exhibitions.

It may be well to conclude, in the words of a recent report on the academy, that it is mostly private institutions which keep alive higher learning in the Lebanon. Given the necessary funds and facilities, they could continue working for the fusion of Western and Eastern cultures in a liberal atmosphere where knowledge is held sacred and equity, justice, and humanity can find full expression.

GEORGE D. SHAHLA.

SECTION IV

ACADEMIC FREEDOM

THE tradition of academic freedom contains within itself a number of concepts. It implies that a university has the right to decide several things. First it has the right to decide who shall teach within its walls. Secondly it alone shall decide what should be taught. Thirdly, it retains the right to admit or reject students who seek admission. Finally it regards methods of teaching as falling entirely within its jurisdiction. Within this framework of institutional autonomy there exists, of course, the academic freedom of the individual teacher or professor. He, too, assumes responsibility for what is taught, for the way it is taught and to whom. In certain European countries of course, the possession of a secondary school leaving certificate gives automatic entry to a university. But the examinations on which the award of a certificate is based are frequently conducted by the universities or by men who have been trained there and who have consequently accepted their standards.

These freedoms have implied that the most heretical opinions might be expressed by professors without question. It has meant that any sort of political pressure on faculty members to conform to certain ideologies was resisted. As we have noted earlier, academic freedom has rarely been accepted by all sections of a community without reservation and challenge. From time to time the limits of discussion within the university have been set from without by powerful groups. Legislation in some countries has effectively removed from the universities the power to select their students. Tests other than academic have been used by some universities to restrict entry—of these, religious conformity has been one of the most important. These pre-requisites for entrance may or may not have had governmental sanction.

The operation of academic freedom is many-sided. The direction of attack and the nature of defence has depended upon national circumstances and has varied over the course of the centuries. Nevertheless the character of the problem was undoubtedly changed when national governments began to take an active interest in education—that is, when some private institutions became public and new public schools were established. In France the revolutionary governments found it necessary to suppress the universities, not because they despised learning but because they feared the power of corporations. But everywhere the interdependence of national policy and university policy has increased. This has meant that conflicts have arisen in all the aspects of academic freedom that we have mentioned. Sometimes these have affected the universities *per se*, on other occasions individual teachers have been involved.

The position of the individual member, of course, has always depended upon the strength of the university as an institution. The latter has often been able to protect those of its members whose views ran directly contrary to the establishment. This has meant that individuals have been able to express their views freely whether in the course of their professional work or incidentally. Where university autonomy has been weakened, however, the position of an individual teacher might be difficult. This situation has been further complicated in countries where the administration has tended to separate off from the teachers. Under these circumstances new forces have had to be developed to safeguard the interests of the university teacher. Specifically, we find the growth of organizations of university teachers whose task it is to conduct negotiations with the administration and government agencies on points of academic freedom, and in some cases—as in England—on national salary scales. Such organizations might in future play an increasing role in university affairs. It is to be hoped, however, that they see their task as a professional one, not restricted to salary negotiations but also in association with administrators and government as the formulation of policy and a code of professional ethics which, whilst protecting academic freedom, will prevent academic irresponsibility.

A further factor which has influenced the academic freedom of institutions of higher learning should be noted. The expansion of these facilities has taken a variety of forms. Many institutions, for example, have been upgraded secondary schools. As articles in previous sections have shown, separate institutions have been established with a status comparable to that of the universities. These developments have often been promoted by governments whose control of the higher institutes has consequently been greater than is typical of universities generally.

The problems associated with academic freedom have thus taken different forms. In some cases the difficulty has been to establish it. In other cases attacks have been directed against the right of a university to exclude students whom they regard as unqualified for one reason or another. Policy-making has been almost entirely in the hands of administrators. Appointments have been made against the wishes of the teachers themselves. Security of tenure and the bases on which a university professor might rightfully be dismissed are issues of concern to-day. Questions of contract, retirement age, the signing of loyalty oaths, and wrongful dismissal arise. Finally there is always the danger that the universities might fall completely under political control. The defences against these kinds of abuse are important. The case studies illustrate types of problems and suggest specific ways of dealing with them.

The view that academic freedom should, for example, become a public matter is advanced by Professor Hullfish. The changes which have made the American institutions of higher learning more responsive to public pressure, either from students or through state legislatures, have had very considerable implications for academic freedom in the United States. The weakened position of the universities *per se* has had repercussions on the security of faculty members. The proliferation of types and the enormous expansion of universities and colleges has meant that the ability of any institution to defend itself and its members from attack varies enormously. Moreover, a climate of opinion accepts the desirability of admitting students to institutions of higher learning in ever-increasing numbers. Under these circumstances the universities and colleges cannot wield the solid power of a corporation nor can they enlist, as they are still able to in Europe, enough political power to help them. New devices have had to be developed and are in process, even now, of taking shape. Professor Hullfish shows how the establishment of public institutions was itself a liberating movement, freeing education from sectarian control since state legislatures, except on some specific issues, represented no single doctrine. Academic freedom under these circumstances becomes a public matter to be protected along with the other freedoms enjoyed by free men. And since it hangs on a slender thread, it requires that "those who believe in freedom must remain eternally vigilant on all fronts". This removes the problem from the context in which it is seen in Europe, where university autonomy is maintained not by the public at large—although they may acquiesce in it—but by an association of power groups. Professor Hullfish points to the particular circumstances which affect the position in the United States and cites examples of attacks on academic freedom and the defences put up against them. Professor Riesman's article touches on further aspects of the problem in the U.S.A.

The details given by Dr. Mantovani of the suppression of freedom in the universities of the Argentine by Perón illustrate the dangers of political dictatorships for the universities. Devices which in France did not result in control by the state were used in the Argentine under Perón to remove from the universities the right of self-government. Professors were removed in large numbers for political reasons; lack of self-government led to demoralizing divisions among the faculty into separate groups. The universities became instruments of propaganda. It was evident, writes Dr. Mantovani, " that the university had given in and accepted totalitarian control ".

No matter how strong the universities are they can perhaps only maintain academic freedom in countries where other important freedoms are allowed to flourish. It may, however, be that one of the important tasks of the universities is to ensure that these other freedoms are not lost. Perhaps the first line of defence for the universities in the interests of their own autonomy and freedom is for their members to watch over the freedoms which exist in their society generally. If this is so, then they cannot afford to ignore pressing political questions and simply look in on themselves and their own immediate interests. In this respect we might again mention the view expressed by Dr. Larrea in an earlier section. It is the responsibility of the universities to concern themselves with the wide questions raised in national and international politics. Strong though the universities may be, their security finally depends upon an atmosphere of freedom in society generally.

In South Africa the policy of apartheid has thrown great strain on the ability of the universities to remain free. Professor Raum concludes his description of the situation in South Africa by saying that the Separate University Education Bill " incorporates two principles which are alien to the concept of university as derived from English tradition, so far generally followed in South Africa ". First it implies that the initiative for establishing institutions of higher education cannot be left to private enterprise alone—but one possible consequence is that there will be a very much reduced measure of autonomy at places like Fort Hare. Secondly the administration of the admission policy will be removed under this Act from the Senate and the Council. Whatever the advantages of the arrangements proposed under the Bill, " academic opinion at the ' Open ' universities considers them too high a price to pay for the loss of academic freedom ".

Problems of academic freedom at Makerere (Uganda) arise from somewhat different reasons. Mr. Larby points out that Makerere had to " face an early struggle for its academic freedom and an autonomy unfettered even by an indirect government control ". The college grew out of a trade school and was financed direct from the treasuries of the Territories responsible for it. There was a fear on the part of the government and immigrant groups that it might have a disruptive influence on the *status quo* " either through the academic content of its courses or in its disciplinary control of its students ". Staffing difficulties and the home backgrounds of many students added to the difficulties in an area where the solid traditions of university autonomy were lacking.

Finally, Professor Montrose examines from a legal viewpoint an extremely significant case involving the right of tenure of a university professor. The dismissal of a professor at the University of Tasmania on moral grounds from his university society raises issues of great importance, not only in the matter of the dismissal, but also in the manner. Many questions of interest with regard to academic freedom arise from this case, such as: the idea of master-servant relations in a university community; the nature of a teacher's duties from the moral point of view; the question of probationary periods, length of notice, and the almost absolute permanency of appointment of professors; and —from the practical aspect perhaps the most important—the conduct of domestic inquiries carried out by universities in relation to normal legal practice and the relation of such domestic inquiries to legal procedure in the courts.

THE EDITORS.

CHAPTER ONE

Academic Freedom and the Universities in the U.S.A.

IT is paradoxical that men have advanced to the point where no substantial argument can be put forward to counter the claim that freedom to explore the full reach of ideas is a necessary condition for the advancement of knowledge, and, hence, for the advancement of man himself; while, at the same time, the social goals they have formulated are in such conflict that the condition of anxiety which pervades their lives often makes them afraid to accept the consequences of new ideas. And, by way of deepening the paradox, we find Russia, driven as she is by totalitarian zeal, and hence desperately in need of the knowledge that will thrust her quickly forward in her reach for power, granting a freedom to scientists that seems incompatible with the monolithic state. In contrast, democratic people, as confused by the sudden threat to their freedom as one is who runs into a tree in the dark, frequently strike out in blind fashion in their efforts to achieve security, without realizing that they thereby initiate a threat to themselves. Within the areas in which Russia permits the lead of ideas to be pursued, the limits of this freedom are seemingly clearly delineated. The exact opposite is the case where men are by tradition free. Faced with no single power that may mark off the limits within which thought may go its untrammelled way, or that may give freedom or take it away, free men permit everyone to get into the act. Confusion is thus confounded and anxieties multiply.

This paradox is not new, of course. The struggle to secure and maintain freedom is a continuing one. And academic freedom, critical though it is within the total movement, is but one aspect of man's effort to free himself from arbitrary restriction and authority of whatever kind. What is new is that Russia is honouring knowledge in order to advance her reach for power and is doing so at a time when, in the conflict of nations, each great power possesses the means by which it may destroy the other, means that will, if uncontrolled by equally dramatic social inventions, lead to the destruction of themselves as well. The paradox may not be new; the need to resolve it, however, has become imperative. No nation can endure 'half slave and half free'; and there is reason to doubt that the world can.

Viewed from one perspective, man may be thought of as a knowledge-seeking being; yet, from another, he is seen to be afraid to commit himself fully to this impulse. The Golden Age of Greece records the fate of Socrates. The Middle Ages were darkened by the ever-present shadows of torture chambers. The light that came with the Renaissance has been dimmed often as habits of the past re-assert themselves. We may say correctly with Marchette Chute that the " astrologer and the censor were both medieval figures " and that " they belong with that other medieval figure, the torturer ". Yet we know also, that, though astrology and censorship are ideas appropriate only to the past, they " linger like the black cat who was once the familiar of witches and who can still frighten otherwise rational people to-day ".[1] It seems fair to say, however, that mankind was consciously sloughing off these repressive remnants of his past until, with the emergence of the modern totalitarians, they came into a new flowering. Woodrow Wilson, writing to Arthur Brisbane on April 25th, 1917, reflected man's released spirit when he said, even with war at hand, " I can imagine no greater disservice to the country than to establish a spirit of censorship that would deny to the people of a free republic [like ours] their indisputable right to criticize their own public officials ".[2]

A Note on the History of Academic Freedom in U.S.A.

In the United States of America, academic freedom was a slowly developing member of the family of freedoms. Those who established the beach-heads of a later civilization on the Atlantic coast faced the task of conquering a wilderness. They had run away from restriction, but their first impulse was, after protecting themselves against the dangers of their new land, to protect the beliefs they had dared to follow on their great adventure. And although they revealed a concern about education before, in fact, the wilderness that lay to the West had been deeply penetrated, this was basically a concern to ensure the perpetuation of doctrine, not to release men into a world of competing ideas. An inscription on a gate at Harvard (1636) ends with these words, " dreading to leave an illiterate ministry to the churches when our present ministers shall lie in the dust ". The chief purpose of this first institution of higher learning of colonial days was caught up in this phrasing. Moreover, as later institutions followed (William and Mary—1693, and Yale—1702, to name but two) they fell into the same pattern, private and representative of religious beliefs. It should be noted, however, that the centrality of specific religious doctrine could not confine the emerging intelligence of an expanding country. The continuing religious interest of the settlers eventually dotted the land with colleges as men of like minds established communities and determined to provide for the perpetuation of their beliefs. These institutions are to-day, for the most part, secular. Whatever the initial purpose of their founders, the fact is that the contribution of these institutions to the development of American higher education is immeasurable.

---

[1] " Publishing in the Good Old Days ", in *The Saturday Review*, April 10th, 1954, p. 54.

[2] S. K. Padover (editor). *Wilson's Ideals* (American Council on Public Affairs, Washington, D.C., 1942), p. 17.

The second great movement in higher education occurred when the American people decided to initiate the public institution, represented to-day by the state universities and colleges and, through a later development, by municipal and community colleges. This movement within the states was accelerated by the Morrill Act of 1862. It has never been checked.

If the initial, private, institutions were under the directive and restrictive influence of church bodies, the later, public, institutions were no less subject to control. State legislatures were not insensitive to what the money they appropriated 'bought'. Nor, it should be added, are they insensitive to-day. Legislatures, however, except as they are sectionally motivated on specific issues, represent no single doctrine, a fact that blurs the lines of restriction and provides an appearance of freedom for those who teach, on the one hand, and makes unpredictable the clear lines of restriction that at times appear, on the other. The point is, of course, that American higher education was developed by people who believed in the importance of education but who were unprepared, as few are prepared, for the inevitable discovery that the education they supported would challenge the validity of the good of belief they wanted perpetuated. And, since their institutions were developing almost simultaneously with a science that both called older beliefs into question and presented a new method of establishing belief, this challenge was inevitable.[3] This was the setting that led teachers in colleges and universities to find ways in which to gain the right to teach, and to conduct research, free of arbitrary restriction, however placed. Theirs was no easy quest, either on or off campus. Nor dare they, after the considerable success they have had, rest on their laurels. Education, to state another paradox, has a way of confirming belief and, also, of challenging it. Hofstadter and Metzger have summed the problem nicely:

---

[3] Richard Hofstadter and Walter P. Metzger, in *The Development of Academic Freedom in the United States* (Columbia University Press, New York, 1955, p. 503), have presented the history of academic freedom in this country in interesting and fascinating detail. The sweep of their study is suggested by a quotation, treating of academic freedom in war-time, from the 1917 annual report of one Harvard president (Abbott Lawrence Lowell), and a following comment upon the maturing of this institution over the years of its being. They quote: "If a university or college censors what its professors may say, if it restrains them from uttering something it does not approve, it thereby assumes responsibility for that which it permits them to say. This is logical and inevitable, but it is a responsibility which an institution of learning would be very unwise in assuming. . . ." Their comment is: "It has taken centuries for Henry Dunster's college to achieve such a high degree of balance and sanity."

> No one can follow the history of academic freedom [in this country] without wondering at the fact that any society, interested in the immediate goals of solidarity and self-preservation, should possess the vision to subsidize free criticism and inquiry, and without feeling that the academic freedom we still possess is one of the remarkable achievements of man.[4]

This is the opening sentence of the final paragraph of an extensive and excellent study. It suggests that men are capable of lifting their eyes and transcending the daily round of their being. It suggests, too, that a society may generate the courage to make itself an object of criticism, lifting itself, so to speak, by its intellectual boot-straps. What it does not suggest is that past accomplishments will underwrite the future. The authors, perhaps fearful that some readers would think that it did, were quick to place a check-rein on this hope as they brought both the paragraph and the book to a close, saying:

> . . . At the same time, one cannot but be appalled at the slender thread by which it [academic freedom] hangs, at the wide discrepancies that exist among institutions with respect to its honoring and preservation; and one cannot but be disheartened by the cowardice and self-deception that frail men use who want to be both safe and free. With such conflicting evidence, perhaps individual temperament alone tips the balance toward confidence or despair.[5]

Academic freedom, except as we dream our way into a utopia where all men are wise, will always hang by a slender thread. But so, too, will freedom in all other areas of human experience. Academic freedom has no guardian angel to protect it. Only men can do this; and only men of commitment will try. The problem is to grasp the nature of the commitment; and, having grasped it, to learn to live in confidence with all that it portends. What is at issue is nothing less than a commitment that places all other commitments in jeopardy. All values that men hold, all beliefs they have established, all ways of carrying on important or trivial activities—all of experience, in short—may, if the central commitment is adhered to, come under the careful scrutiny of a probing intelligence. If academic freedom is to be honoured, no area of experience may be honoured more and, in consequence, be placed off limits by signs that warn inquirers not to trespass. John Dewey once said, " I shall begin to believe that we care more for freedom than we do for imposing our own beliefs upon others in order to subject them to our will, when I see that the main purpose of our schools and other institutions is to develop powers of unremitting and discriminating observation and judgment."[6] Dewey stated the case properly. These are the powers the commitment implies. Yet he over-stated it. The question is not whether we have achieved this purpose but, rather, whether we are moving towards it. Our ' slender thread ' weakens or strengthens in exact relationship to the direction of our movement; and, while it will take a bit of doing to hold fast to this purpose amidst all the pressures other purposes generate, we are entitled to take heart that we have reached the point where those who oppose the principles of academic freedom are somewhat on the defensive.

---

[4] ibid., p. 506.

[5] ibid., p. 506.

Such gains as have been made, however, provide no warrant for complacency. Those who believe in freedom must remain eternally vigilant on all fronts. On another occasion I said that " freedom must be made secure continuously ", noting further that no " citizen ought to leave this matter up to the other fellow, knowing, as he surely must, that there are those who would use their freedom to control the thought and actions of others ". To this I added:

> All of this is of particular significance for the educator. The very nature of his culture makes him the guardian of it. When he fails to help each individual find his special strength and capacity, the culture is the poorer in consequence. When he fails to help each individual gain in ability to deal with ideas critically, and with relative calm, the culture is weakened. When he fails to help individuals learn, through their interactions in classroom and out, to enrich their lives, as their ancestors did before them, by using the differences among them as points of strength to share in creating a common life, the culture is cut off from the source of its democratic well-being.
>
> Thus it is that where our teachers fail, where our educational institutions lack in vision appropriate to their task, the life of the individual citizen is impoverished. Thus it is that the conditions may be created which make it impossible to achieve that which he wishes to cherish. Thus it is, finally, that citizen and educator have a common problem, a common responsibility. The cry of " freedom for our teachers " should not come primarily from the teachers. Were the times less critical than they are, it would be—if not unbecoming—at least embarrassing for them to raise it. This should be the cry of the citizen. His freedom is at stake. Freedom in education is but a necessary condition for the freedom we all seek.[7]

---

[6] John Dewey, *Philosophy and Civilization* (Minton, Balch & Company, New York, 1931).

[7] H. Gordon Hullfish, *Keeping Our Schools Free* (Public Affairs Pamphlet No. 199, New York, September, 1953), pp. 27–8.

Academic Freedom To-day

That freedom is indivisible, that its presence on the campus or in the classroom is directly proportional to its vitality within the culture at large, is at this point too obvious for comment. Yet the fact is that academic freedom is often viewed as the unique quality of life within an ivory tower. Perhaps this is why it often happens that those who do not live in the 'tower' feel no obligation to help those within maintain what they know to be the condition essential to their being. And, conversely, this is why many within have remained insensitive, when they should have been alerted, to the encroachments upon freedom in society generally. If there were ever warrant for maintaining the fiction of the separation of the life of the gown from the life of the town, that day has passed. Those who wear the gown are also citizens of the town and, try as they may, they will find neither security nor sanity by the deliberate compartmentalization of their lives.

In specific terms we need only point to the consequences for the classroom that have resulted from the decisions of the United States Supreme Court that have made a segregated education no longer legal in America. A resulting political struggle, the end of which is not in sight, has so inflamed the passions of those who see a way of life threatened that where they fail in court actions and legislation at least to delay, if not to subvert, the law of the land, they are unable to forestall mob action which makes a mockery of the freedom, the right of states to give or withhold educational opportunity as they see fit, which they believe to be theirs. In turn, of course, supporters of the Court decision are incensed by the callousness and stupidity of its opponents, an emotional condition which from actions no more reasoned than those of the segregationsts may flow. Meanwhile, in the heat of the ensuing struggle, the rights of young people whose heritage had seemed to guarantee them educational opportunities appropriate for free men, as well as the rights of the teachers who are specifically responsible for the provision of these opportunities, are forgotten.

A recent occurrence (June 1958) is illuminating. Louisiana legislators, following the pattern of legislators in other hard-core Southern states, introduced Bills that would result, if passed (and they were, including one permitting private agencies to take over the public schools), in the closing of public schools whenever they were under Court order to proceed with integration. Along with other citizens, about sixty members of the faculty of Louisiana State University exercised their freedoms of speech, opinion, and petition and signed a petition in opposition to the intent of the legislators. This rightful act on the part of these citizens had a consequence which, had it been the brain child of a writer of musical satire, would have been ludicrous but which, being the act of assembled legislators in a free world, tragically reveals how far reason has fled the scene. The House of Representatives, by unanimous vote, moved to establish a ten-man committee, charging it with responsibility for questioning these professors publicly and individually. Whatever the outcome, notice has been served, not only upon teachers in Louisiana but, in fact, upon teachers throughout the South, that they are expected to remain morally neutral, at the least, lest they subvert a way of life which is determined to perpetuate itself whatever facts, or persons, it must grind under heel to do so.

The pervasive character of this resisting reaction to the decisions of the Supreme Court which bear upon civil liberties generally and upon segregation in the schools specifically bodes no good for freedom, and this at a time when the United States of America is, both by its power as a nation and by the character of its performance over the years of its growth, looked to as a protector of the freedoms men have gained and yet seek to gain. Nowhere is this to be witnessed more clearly than in the area of academic freedom, as a seemingly simple incident will illustrate. In February 1957, the student newspaper published weekly at Alabama Polytechnic Institute carried an editorial, written by the student editor, that was critical of the plan being followed by the New York City Board of Education to assign students to schools, often at some distance from their homes, in order that neighbourhood segregation in education might not substitute for calculated segregation. A week later the paper carried a letter written to the editor by an assistant professor of economics on a term appointment. The writer chided the student editor for his failure to appreciate the motives which had led the New York City Board of Education to find a way to deal with a knotty social problem, and stated positively:

> It will not be an easy task to re-zone or to assign teachers to the less fortunate schools, either for the Board or the teachers involved. But if assignment and re-zoning are necessary to carry out the task of educating the children of New York, all the children, black or white, rich or poor, then assignment and re-zoning must be supported by all who sincerely believe in education and social justice.[8]

This author was a visiting professor at the Alabama Polytechnic Institute during the winter of 1957 and, on the same day that he read this letter to the editor, he asked the dean of one of the colleges if its appearance did not portend trouble for its writer. The dean was sure it did not. Yet less than a month later, on March 14th, the Board of

---

[8] A full report of this case appears in the Spring issue (March 1958) of the *AAUP Bulletin* (Vol. 44, No. 1), pp 158–69.

Trustees voted not to renew the professor's contract (its action was not reported to him until early in May). The Board took this action in executive session, from which the President, Vice-President, their secretaries, and reporters were excluded. Later, when its action became a matter for investigation, the Board insisted it had the right to judge the appropriateness of renewing a contract for a teacher of probationary status and, in doing so, revealed its failure to grasp the fact that principles governing academic freedom apply to staff members of probationary status quite as much as they do to those who have been granted tenure. Thus, one letter to a student newspaper of limited circulation, resulted, to the surprise of the campus community, in a failure to reemploy a teacher whose scholarship or teaching competence were never brought into review. The action was in violation of a principle which guides the American Association of University Professors in its efforts to secure and maintain academic freedom—namely:

> Academic freedom should be accorded not only to faculty members with tenure but, also, during the terms of their appointments, to others with probationary or temporary status who are engaged in teaching or research. Moreover, neither reappointment nor promotion to tenure status should be denied, nor any other adverse action taken, for reasons that violate academic freedom. Dismissal or other adverse action prior to the expiration of a term appointment requires the same procedure as does the dismissal of a faculty member with tenure....[9]

The significance of these incidents lies in the light they throw upon the problem confronted by individuals and institutions in a culture of plural values, in which that which is right is established through the concerted thought of men of good will and not by the brute force of authority. Within a brief span of years following the decision of the United States Supreme Court that articulated the conscience of citizens generally, North and South, the cause of academic freedom in the South has been damaged in a way that will take years to repair. And, of course, this bell tolls for all who teach within the nation. To the burden of maintaining academic freedom under conditions of anxiety, even of hysteria, as the nation and the world struggle with the problem of security, has now been added the problem of protecting it in the face of the tensions arising from a national effort to guarantee the full sweep of civil liberties to all citizens.

Combating Attacks on Academic Freedom

If one were an idle spectator overlooking the current scene, a ready

---

[9] "Academic Freedom and Tenure in the Quest for National Security", in *AAUP Bulletin* (Vol. 42, No. 1, Spring 1956), p. 61.

answer to this problem would appear to be at hand, for the individual, at least. The individual could simply refuse to teach in institutions that fail to honour academic freedom. This decision, however, was easier to make in a simpler day; though many of firm principle will not consider appointments in Southern institutions to-day, and many no doubt have accepted other appointments to escape the dilemma the situation has created for them. Neither the culture nor the profession can escape the dilemma, however. Where once the American Association of University Professors, after investigation by a specially appointed committee, followed by a study of its report to the parent committee on Academic Freedom and Tenure (Committee A) and a recommendation to the Council and the Annual Meeting, could, if sustained in its view by the delegates attending the meeting, censure an institution (and thus black-list it), a segment of the culture now does the censuring by placing the institutions off limits, so far as academic freedom is concerned.

Our spectator, however, clear as the answer may seem as he speculates about the problem, will discover, in fact, a situation that permits of no clear answer. A teacher may resign, of course. Another may refuse to accept a proffered appointment. Yet another may wash his hands of the matter and retire to his study or laboratory to do what he considers to be his proper work, while all the proper conditions for the doing of his work collapse about him. There remains, however, a large body of dedicated teachers in the South who are not attracted by these alternatives. On the one hand, each has a personal investment in his community, his state, and his institution upon which he can turn his back only if overcome by complete crisis. On the other hand, his commitment to the rights free men should enjoy, a commitment of no less intensity than that of those more free to express it, compels him to stay at his post to try to make reason prevail on campus and off.

No one has written more perceptively on this problem than Iredell Jenkins.[10] He writes as one born and reared in the South, though his experience has not been limited to it, and as a professor of philosophy at the University of Alabama. He writes, also, as one who believes the treatment of the Negro to be unjust, in the country as a whole and in the South in particular. And he writes, finally, as one who is convinced that the universities of the South " should play a constructive role " in making real the " paper promise of equal opportunity ". He honours the views of those who see either resignation or retreat into the study as ways of dealing with the problem. He chooses, however, the harder course, the end of which is not in sight, though some of the consequences of pursuing it, when glimpsed, are frightening. The rough outline of it he presents as follows: "To state one's ideas in public, to mix them in the melting-pot of discussion, and so to have them make their impact on whatever decisions are taken." [11] Here is to be found "at once a policy of protest against evil, of the cultivation of virtue, and of active struggle for good".[12] Yet those who make this choice "put themselves partly at the mercy of events", some of which, as has been demonstrated, reveal no quality of mercy.

---

[10] " Segregation and the Professor ", in *AAUP Bulletin* (Spring, 1957, Vol. 43, No. 1, pp. 10–18). This article was first published in *The Yale Review*, Winter, 1957.

The problem, of course, reaches beyond the individual professor. The life of institutions is at stake, and Jenkins knows what many of us are sadly discovering: under political prodding, made the more intense by the blanket of emotionalism which successfully smothers the clean flame of rational insight men of good will try to fan, the people of the Deep South are capable of destroying their educational institutions, even though, in a calmer moment, they would see the self-destruction their intended act involves. Thus, merely to survive, the universities of the South must trim their sails. They may hope for better weather in the near future; meanwhile, they have to tack and haul to meet the storm that is upon them. And the professor who remains with his institution, determined to help it ride out of the storm, is affected in all the ways the institution is. If he ignores this fact, he will be in trouble, the individual being, as Jenkins points out, more expendable than the institution. Institutions, indeed, according to Jenkins, are "literally indispensable", since, when weakened, they "take a long time to recover" and leave a vacuum in which their "functions go unperformed" and their "values unserved". Thus, a university is justified, and even obligated, to bow to the expedient and to cultivate prudence in a manner that would be clearly immoral in an individual".[13]

The Dilemma in the South

Professors in Southern colleges and universities confront, then, a dilemma of proportions. "As individual moral agents they feel obliged to serve the right as they see it. As members of an institution they feel obliged to consider its judgments of what is expedient and practicable in the light of its vital interests." [14] Professor Jenkins, aware of the fact that the behaviour of those who remain with their institutions under these circumstances will satisfy neither themselves nor others, bespeaks, nevertheless, "the sympathy and understanding of colleagues" whose lives are not complicated by the problem of integration, for both Southern universities and their faculties. The fact is, as he concludes, that "while it is quite easy to say what is right under hypothetical conditions, it is extremely difficult to decide what is best in actual circumstances".[15]

---

[11] ibid., p. 14.
[12] ibid., p. 15.
[13] ibid., p. 17.
[14] ibid., p. 17.

The American university has never faced a more difficult problem. The law of the land is clear; yet the determination to negate it is apparently increasing. Despite a general recognition throughout the South that eventual integration is inevitable, there is no present evidence that suggests the problem will soon be solved. Meanwhile, of course, the conditions that nurture academic freedom steadily deteriorate throughout the South. It is clear that a long struggle is ahead. In large measure, since pressure from the 'outside' but serves for the moment to increase resistance, the responsibility for maintaining academic freedom in Southern universities falls upon those who are already heavily burdened. The nation is fortunate that so many of its members are willing to endure the loss of many skirmishes and battles with the patience and courage that rests on the faith that eventual victory will be theirs.

The Fifth Amendment and Academic Freedom

Just a few years ago the problem of academic freedom appeared in a different light. The nation was much disturbed by the discovery that some of its citizens had engaged in subversive acts. Its concern arose against the background of a pervasive sense of insecurity which increased in intensity as the realization dawned that war's end had brought, not peace, but the threat of further, and perhaps even more destructive, conflict. This situation was made to order for the politically motivated who, in the name of patriotism, could advance their personal ends. And there were those around ready to exploit it. A number of serious consequences followed. Some states adopted loyalty oaths for teachers, and so did some institutions. Often the oaths were more designed to force the teacher to say he had never belonged to any organizations that planned to overthrow the government than they were to secure an affirmation of loyalty. At some institutions screening devices were created to make sure no tainted speakers appeared on campus. Investigations, by duly constituted committees of the United States Congress, as well as by self-appointed individuals or groups, flourished, all designed to find the Communist teachers who had infiltrated the ranks of scholars.

---

[15] ibid., p. 18.

This whole movement came to be known as 'McCarthyism', named after the late senator whose swashbuckling tactics threatened to make a shambles out of the long-established Western tradition of due process. It was he who used the term, 'Fifth Amendment Communists', to designate all who fell back upon their legal right, provided by the Fifth Amendment to the Constitution, to refrain from replying to questions the answers to which, in their judgment, might incriminate them. And some institutions, caught up in the fears of the moment, made his task easier by publicly announcing that they would welcome investigations, when it was clear that no true investigation would be conducted, and by accepting the use of the Fifth Amendment before a committee of the Congress as *prima facie* evidence of guilt, as no Court would have done. On this last score, of course, the institutions involved permitted investigating committees to do their firing for them.

It is small wonder that fear came to the campus during this period of hysterical behaviour, in places high and low, or that tendencies towards conformity became characteristic of both faculty members and students. Teachers were targets and, sadly, many thought it best to accept the insinuation that their ranks had been generally infiltrated, forgetting that each uncontested nibble at the foundations of educational decency would but increase the appetites of those who wished to show their power. Orwell may not have had a name for it but he had picked the year 1984 for its fruition. This was the road to disaster.

Fortunately, the peak of hysteria passed more rapidly than might have been expected. Important voices were raised in protest against those who thought they could protect freedom by assaulting it. Members of the Congress itself, newspaper and magazine editors, commentators on radio and television, clergymen and educators, leaders of labour and of industry and of civic groups, through tempered analyses of the excesses bred of fear and irresponsibility revealed the shadows of authoritarianism that were creeping over the land. And, most significantly, the United States Supreme Court stood fast in repeated decisions which, in upholding civil liberties, ran the shadows back into the corners.

This improvement in climate is, I believe, undeniable. Tensions were reduced as irresponsible critics discovered that their tactics back-fired. They stirred into thoughtfulness many citizens who saw for the first time that the curbing of academic freedom could lead to the progressive loss of freedom generally. Moreover, a specific decision of the Court,[16] one that declared invalid the self-administering legislation by which institutions dismissed staff members automatically whenever they turned to the Fifth Amendment in refusing to answer questions about possible Communist connections or associations, placed the responsibility for investigations involving the question of dismissal squarely upon the employing institutions. The Congressional Committee can no longer substitute [17] for a properly constituted campus committee; and the existence of the latter is a first step towards meeting the standards appropriate to the academic community. The other steps, involving the principles of due process, are open to scrutiny and evaluation and, where they are not followed in dismissal actions, the administration of an institution may expect to be investigated by the American Association of University Professors and perhaps to be censured. Following this decision one institution, Rutgers University, revoked an earlier Board ruling that the use of the Fifth Amendment before a duly constituted Congressional Committee was a sufficient act to sever the professor's connexion with the institution. An earlier Court decision, in 1952, had checked the tendency to use the loyalty oath to establish guilt solely on the basis of association. Thus, in several ways the nation established a needed composure and the academic community regained a measure of the freedom that was slowly being denied it.

---

[16] *Slochower* v. *Board of Higher Education*, 350 U.S. 551 (1956).

It would be a mistake to suggest, given the unsettled and unsettling problems with which the nations of the world now struggle, that the issue of academic freedom has been settled. The fresh air that has blown over the campus can be easily fouled, as the situation in the South has shown. Further, much legislation at state and campus levels, presently inactive, remains on the books, though one may anticipate, unless crisis overcomes reason entirely, that a public opinion alerted by the aberrations of the recent past will lessen the effectiveness of its further use. Since a plural culture, however, may never let down its guard, lest enemies of freedom, without or within, who are ready to make it over in their image, succeed, the need for vigilance is ever present. It is for this reason that the steadying influence of the American Civil Liberties Union is presently an important cultural factor in support of a renewed vigour on the part of the American Association of University Professors and of the growing importance, at the public school level, of the National Commission for the Defense of Democracy Through Education of the National Education Association.

There is no point at which to mark off the absolute achievement of freedom of thought. One may, however, note direction of movement.

---

[17] This does not suggest that the way in which a professor conducts himself before a Congressional Committee will go unnoticed on his campus. It does mean that his case is not to be prejudged, that the university in question has an obligation to conduct a proper investigation.

And on this score the facts seem to suggest that at the national level a disheartening movement has been reversed, with academic freedom made more secure. But this is not so where the emotions aroused by the integration problem threaten the very existence of educational institutions. It should be noted that the institution in the South is as much a target as are the teachers. Boards of Trustees and administrative officers may have suffered a loss of nerve during the witch-hunting days of recent memory, feeling that if they failed in some public way to clean house the financial support they sought by contributions or secured through appropriations would be limited. They had no reason to believe, however, that their institutions would be abolished. Their counterparts in the Deep South to-day may feel so threatened. Our picture is darkened, therefore, in one quarter even as it brightens in another.

Investigations and the Right to Teach

Two problems remain that are worthy of brief mention. One arises because of a specific shift in policy on the part of the American Association of University Professors in the conduct of investigations that look forward to a possible censure of the administration of an institution. The other centres about the question of whether institutions that are devoted to the advance of truth and its dissemination should permit Communists to teach.

In the fall of 1955 the Council of the American Association of University Professors appointed a special committee " to review the effects upon academic freedom and tenure of the national effort to achieve military security and to combat Soviet Communism ".[18] The Council recognized, as did the committee, that much ground had been lost on the front of academic freedom during the years in which the 'cold' war had been interrupted only by 'police action' in Korea, with the latter, so far as men in uniform were concerned, having all of the attributes of a 'hot' war. With no end in sight for the reduction of tension among nations, it was decided that " the intellectual liberties of the American people and the hard-won conditions of freedom and tenure in academic institutions must either be preserved in this period of trial or be lost for a long time ".[19] Moreover, the committee recognized, as this writer has, a climate more favourable to the pursuit of its task than had existed for some years. It stated specifically:

---

[18] *AAUP Bulletin* (Vol. 42, No. 1, Spring 1956, p. 50). The report of this committee, titled "Academic Freedom and Tenure in the Quest for National Security", is presented in full in this issue, pp. 49–107.

[19] ibid., p. 51.

> During the past eight years, the Association has been gravely concerned . . . and within the Association many specific instances of dismissal of faculty members because of alleged unwillingness to make disclosures to representatives of the employing institutions, have been subjected to scrutiny. The Association has not, however, expressed itself publicly on these particular situations. The insistence that it do so is wide-spread among its members; and this committee believes that, at the present hour in national and world affairs, we may gain much by announcing the Association's position in reference to these situations, and by stating anew, in the present context, the principles upon which the Association relies.[20]

The committee formulated a set of 'relevant principles' to guide those whose concern it is to establish and maintain the conditions under which the intellectual life of a people has a reasonable chance to flourish. In essence these principles are a re-statement of those adopted in 1940 by the American Association of University Professors, applied, of course, to the security problem the nation has faced since the end of the Second World War. Their chief contention comes down to this: " No rule demanding removal for a specific reason not clearly determinative of professional fitness can validly be implemented by an institution, unless the rule is imposed by law or made necessary by the institution's particular religious coloration." [21] The committee was fully aware of the difficulties university administrations face in protecting the proper role of their institutions against the often uninformed public clamour that they 'clean house'. It insisted, however, that those who are tempted to make what they think of as slight adjustments to public pressure should remember that " to yield a little is, in such matters, to run the risk of sacrificing all ".[22]

The committee stated its principles firmly and with commendable calmness. It then proceeded to examine situations that had arisen at certain institutions during the years immediately preceding its appointment and, at this point, introduced, so far as the Association was concerned, a new method of investigation, the examination of 'the public record'. It rested its conclusions (except where it noted exceptions) " upon facts of public knowledge and the contents of published documents, including those circulated within the institutions themselves and not regarded as confidential ".[23] This represented an abrupt shift from its long-established practice of appointing a committee to visit an institution that had seemed to violate basic principles of academic freedom and to conduct an on-the-spot investigation. And it raised a question in the minds of some as to whether an institution is not entitled to the same protection of due process that the Association has worked hard to establish for professors. Only in such an instance as existed at Rutgers University prior to its change of procedure, which no longer made resort to the Fifth Amendment an occasion for automatic dismissal—the condition that existed at the time of this *ad hoc* committee's existence—does the procedure seem warranted. Public documents, especially " those circulated within the institutions themselves and not regarded as confidential ", are not likely to present all the factors that enter into the thinking of those who formulate them. Moreover, the presence of a committee of the Association on a campus will lead all concerned to a thoughtful review of their responsibilities. The on-the-spot investigation will thus serve an educative purpose, though it may not save a professor's position nor permit an administration to escape censure. In fact, the case of the dismissal of a faculty member at the Alabama Polytechnic Institute, referred to earlier, on the basis of his view on racial desegregation, would seem to be an instance where censure on the basis of the public record would be justified, if the use of this procedure may be justified at all. Yet the Association did conduct an investigation in this instance and the evidence in the report [24] is that this act proved helpful in moving the Board of Trustees to a better understanding of its responsibility in assuring the faculty of its interest in protecting academic freedom. It is obvious, of course, that methods of investigation must be reviewed as the conditions change that make investigation necessary. It would seem to be the part of wisdom, however, to exercise unusual care in whatever changes may be proposed in order that the Association may not be open to the criticism that its actions violate the procedures it properly insists upon when an administration deals with a professor.

---

[20] ibid., p. 52.

[21] ibid., p. 57.

[22] ibid., p. 97.

[23] ibid., p. 50.

On the question of permitting the Communist to teach, good men differ. The late United States Senator Robert A. Taft (he was a trustee of Yale University) took the position that he " would not favor firing anyone simply for being a Communist unless I was certain he was teaching Communism. . . ". The senator expressed, in essence, the same view as that taken by the committee of the American Association of University Professors that prepared the report, " Academic Freedom and Tenure in the Quest for National Security ". This committee held professional fitness to be the critical test of the teacher's right to remain at his post. It refused to condone the practice of basing dismissal upon the exercise of a teacher's constitutional right; it asked for a decision by a faculty member's peers, adding:

---

[24] See *AAUP Bulletin* (Vol. 44, No. 1, Spring 1958), pp. 158–69.

> This principle governs the question of dismissal for avowed past or present membership in the Communist Party taken by itself. Removal can be justified only on the ground, established by evidence, of unfitness to teach because of incompetence, lack of scholarly objectivity or integrity, serious misuse of the classroom or of academic prestige, gross personal misconduct, or conscious participation in conspiracy against the government. The same principle applies, *a fortiori*, to alleged involvement in Communist-inspired activities or views, and to refusal to take a trustee-imposed disclaimer oath.[25]

The American Civil Liberties Union, through its Academic Freedom Committee, has opposed automatic or arbitrary dismissals, also. Yet this view, in so far as it encompasses the case of the teacher who is a Communist, runs against the current of public opinion. The position of the National Education Association, that it wants no Communists in teaching positions, is a better expression of the public view. The point the American Association of University Professors tried to make in its 1956 statement when it said, "To maintain a healthy state of thought and opinion in this country, it is desirable for adherents of Communism, like those of other forms of revolutionary thought, to present their views, especially in colleges and universities, so that they may be checked by open discussion ",[26] is not approved by the public generally nor by a majority of the members of the academic world specifically. In the case of the latter group this may be because it finds the statement academic, not believing a Communist would thus openly expose himself.

The case against the Communist as teacher, it should be noted, has been seriously argued by supporters of academic freedom. He is viewed as a man entrapped within a movement that takes from him his freedom to think independently, incapable of representing the standards of scholarship the academic community should exemplify. Sidney Hook has caught the spirit of this opposition in the title of one of his several discussions of the problem, to wit, *Heresy, Yes—Conspiracy, No*. Hook properly foresaw that the question of academic freedom would become increasingly critical " as the struggle between the West and Communist East " became more intense. But he recognized, also, its perennial character and, hence, insisted that whatever initiated the discussion of the problem, "it is the teachers themselves who must formulate and administer the proper standards of academic freedom, not congressional committees or other agencies of State ".[27] It should be added, also, that in his opinion most of those who write about academic freedom, whether supporters or opponents, are guilty, at the least, of "sloppy rhetoric".

---

[25] *AAUP Bulletin* (Spring 1956), p. 58.

[26] ibid., p. 99.

[27] Sidney Hook, *Heresy, Yes—Conspiracy, No* (The John Day Company, New York, 1953), p. 13.

At first glance, Hook and, say, the American Association of University Professors, do not seem to be far apart in their statement of basic principles. Each would turn to educational grounds in reaching a decision about a teacher's fitness, and each would give members of the profession the responsibility for the decision. But, to put it bluntly, Hook contends that the position which would grant the Communist the same consideration as others in the belief that he is to be judged as other teachers should be, on the basis of what he does in the classroom, is, to say the least, naïve. He says:

> A sober evaluation of the evidence will reveal that in theory and practice members of the Communist Party are committed to grave and systematic violation of their three-fold educational trust. For their responsibility to help their students to mature intellectually and emotionally, for their responsibility to their colleagues in the quest for truth, and for their responsibility to the democratic community to develop free men, they have substituted a blind and partisan loyalty to the objectives of the Communist Party. Their act of membership in the Communist Party is comparable to the action of a physician who has banded himself together with others for the express violation of his Hippocratic oath.[28]

This question cannot be argued properly, according to Hook, apart from the recognition that the nature of the Communist Party, and of the individual's relationship to it, makes it impossible for the teacher member to act with integrity. His documentation to show the professional unfitness of the Communist teacher is presented under these topics: teaching, other campus activities, and research. It is impressive.

There remains the problem, however, despite Hook's view that to suggest this may reveal a *naïveté* that is sure to result in a confusion of thought, of protecting the conditions of freedom, even in dealing with those who would undermine it. Our protective coloration must not resemble that of the enemy. The question of adding a known Communist to a faculty is, of course, at this moment, rather hypothetical. Were such a candidate to make his affiliation known, which is not likely, this fact would bear upon the evaluation of his scholarly attributes. The question arises in its significant form, therefore, when one who has been teaching is discovered to be a Communist. All who believe in academic freedom would accord him a fair hearing by his peers; all would ask that he speak frankly. With the evidence in hand, if membership were disclosed, some would insist upon immediate dismissal, some would not. Hook, incidentally, would not in each instance. He does insist that the profession rise to a realizing sense of what it means to be a member of the Communist Party; he thinks it has not. And he is quite certain that a member is incapable of functioning at the level of scholarly integrity. He concedes, however, as his method of inquiry compels him to, that "admitted Communist Party membership, although *prima facie* evidence of unfitness and disqualification, will not *automatically* lead to dismissal without further consideration of the case and of the consequences of acting on it".[29] Hook would want all to recognize, nevertheless, that the fact of membership would itself have consequences within the behaviour of the individual generally and in the classroom specifically. But he would not, as yet others would do, judge the case solely upon the teaching performance.

---

[28] ibid., p. 180.

It seems to me that Hook's phrase, "the consequences of acting on it" (a decision to dismiss) is the critical point at which to attack the problem. And among the consequences for critical consideration are those that bear upon our ability to maintain an uninterrupted concern for the sensitive development of the conditions that make academic freedom a freedom recognized within the profession and within the culture. Winston Churchill was once reported to have told the House of Commons that the Red Dean of Canterbury would have to be tolerated, in these words: "Free speech carries with it the evil of all the foolish, unpleasant, venomous things that are said, but on the whole we would rather lump them than do away with them." There is much that will have to be suffered to keep the spirit of freedom, and hence of academic freedom, ever growing. On the whole, we are entitled to believe that informed, courageous, and committed men can do it.

H. GORDON HULLFISH

---

[29] ibid., p. 265 (emphasis in original).

CHAPTER TWO

*The Influence of Student Culture and Faculty Values in the American College**

My title is a broad one, but my coverage is restricted. In the first place I use the word 'culture' here in the anthropological and not the humanistic sense, for one of my principal themes concerns the formation of a student culture in American colleges and universities (often, in fact, of many sub-cultures) which, while it reflects the general climate of the American upper-middle class, is only very partially open to the transmission of the values of the faculty. And by 'values' in this connexion I refer less to those preferences or beliefs professors hold as members of a particular occupational culture, that is, as members of the academic profession or of their several disciplines, but rather to the values they represent as more or less liberal, 'enlightened' intellectuals who are somewhat marginal to the main currents of American life and thought. In the second place I am restricting my treatment of this topic by focusing my discussion around a book, Philip Jacob's *Changing Values in College*, which has been the occasion for extensive discussion among educators.[1] They have responded to the book, as we shall see, because it confirms their own misgivings as to the gap that yawns in the American college between faculty members who grew up in the era of the New Deal and Franklin D. Roosevelt, and responded with enthusiasm to Adlai Stevenson's candidacies,[2] and students who, taking the Welfare

---

* I am indebted to the Carnegie Corporation for the opportunity to work on problems of higher education discussed herein, and to the American Sociological Society for permission to reproduce this article which has been developed from a review of the "Jacob Report" [see (1) below] published in *The American Sociological Review*.

[1] Philip E. Jacob, *Changing Values in College: An Exploratory Study of the Impact of College Teaching* (New York, Harper and Bros., 1957). The American Council on Education devoted a session of its Problems and Policies Committee to a discussion of what has come to be called the "Jacob Report" in the summer of 1957; I took part in this, and have drawn on my comments for this article as well as on a review of the Report in the *American Sociological Review*, Vol. 23, No. 6 (December 1958).

[2] This is, of course, an over-generalization. American institutions of higher learning harbour an extremely vocal and influential minority of sophisticated 'new conservatives' who draw sustenance from the conservative aspects of Burke or of T. S. Elliot or of various Catholic philosophers. But the prevailing temper in the better institutions has been politically liberal—I draw here on com-

State for granted, are either politically inert or mildly identified with the mild Eisenhower.[3]

Given the tolerance and amiability of most students towards faculty opinion, the refusal to take that opinion seriously would perhaps have been less troubling had the professors not already felt isolated and beleaguered *vis-à-vis* the American community as a whole. American colleges are scattered all over the country, many of them in small conservative towns which they divide rather than dominate; moreover, small-town thought, with its frequent provinciality and fear of ideas, is powerfully entrenched in the American state legislators and in Congress. McCarthyism only heightened what has been a traditional town-and-gown animus—an animus perhaps overestimated by those professors who first became fully aware of it during the McCarthy era.[4] At the same time, the growing awareness of the lack of student support and sympathy (apart from an indifferent tolerance) gave faculty members the sense that they could not count on an ' unpopular front ' with even their better students who they hoped would share their convictions and perhaps vicariously carry these into the body politic.

A good deal of ferment of this sort actually did take place during the 'thirties and 'forties—judging here by American norms and not by those of other countries where students have traditionally been active politically and where the universities have been close either to the seats of power or to the seats of opposition. The students who organized local chapters of the League against War and Fascism or marched in picket lines or edited radical student papers were always a relatively small minority, although at some institutions they, along with their faculty

---

mon knowledge and also on a study sponsored by the Fund for the Republic which in 1955 interviewed a national sample of college social science teachers. Cf. Paul F. Lazarsfeld and Wagner Thielens, Jr., *The Academic Mind: Social Scientists in a Time of Crisis* (Glencoe, Ill., The Free Press, 1958). The great majority of the more distinguished men were found in this study to have been Stevenson's supporters and they served to set the tone on leading campuses. No doubt a study of faculties of medicine, engineering, or business administration would show a much higher proportion of conservative voters or of people uninterested in politics, while men in the humanities, the more abstract sciences, and the law schools were probably only slightly less Democratic in political affiliation than the social scientists.

[3] A small minority of students, especially in some of the less eminent universities in the South and in the denominational colleges have been active reactionaries, going in some instances to the point of reporting on faculty members' alleged subversiveness to the Press, to legislative investigating committees, or to private vigilante groups.

[4] For fuller discussion, see Riesman and Nathan Glazer, " The Intellectuals and the Discontented Classes ", *Partisan Review*, Vol. 22 (1955), pp. 17–72; reprinted in Daniel Bell, ed., *The New American Right* (New York, Criterion Books, 1955).

mentors, helped set the tone to which other students conformed.[5] The majority of American students, like the majority of American young people who do not go to college, have been reluctant voters, walking placidly in parental footsteps and only likely to become active politically through the accidents of occupational and personal life. They have not traditionally come to college for the sake of ideas, let alone as a forum for political action, but rather to maintain the family's social position or to enhance it—more frequently the latter.[6] It was from the politically alert minority of the 'thirties and 'forties that many of the teachers of to-day were recruited; in the 1950's, such teachers have often looked in vain to their own students for the kind of vociferous and active support they had represented in their generation.

A similar generational gap has of course existed in other fields during the years of the Cold War; thus, the old militants of the labour movement find their successors to be complacent beneficiaries of Welfare State policies. Save in the still violently contested arena of race relations, the Eisenhower years have de-emphasized the battle of ideas, calmed political debate on domestic policy, and brought intellectuals into government service as technicians rather than as ideologues. But in previous situations where there was comparable quiescence (there have been such, but hardly comparable periods of danger), the older generation generally and faculty members specifically could continue to hope that college students would not succumb to despair and political amnesia—and would at least take an interest, in opposition if not in support, *vis-à-vis* their professors' political and more broadly ideological preoccupations. To-day, in contrast, professors complain that their students are docile and uncontentious, that they can be neither shocked nor moved, that they are anything but ' angry young men '.

Changing Values in College has served to crystallize the uneasiness of faculty members and university administrators on these matters. The book was commissioned by the Hazen Foundation, which devotes itself to moral and religious concerns; and Professor Jacob, a member of the Society of Friends, was asked to summarize existing knowledge concerning the impact of college on the moral, religious, and political values of students: he went at his task with the assumption that college should have an impact on values, that the task of college was not only more than vocational but also more than intellectual. Hence, to examine the *Jacob Report* critically offers an opportunity both to review some of the problems of studying the impact of college and of understanding better the present forms of the age-old controversy between teachers and their students.

---

[5] See the important study by Professor Theodore M. Newcomb, *Personality and Social Change* (New York, Dryden Press, 2nd ed., 1958), which describes the permeation of Bennington College, a small liberal arts college for women, with liberal and left ideology in the 'thirties—phenomena perhaps not so different from those at some of the colleges at Oxford or the London School of Economics in the same period.

[6] Cf. W. Lloyd Warner, Robert J. Havighurst, and Martin B. Loeb, *Who Shall Be Educated?* (New York and London, Harper and Bros., 1944).

Jacob began by reviewing the several hundred studies which have been done in the United States since the 1920's concerning the attitudes of students, including experiments in changing such attitudes either through a single experimental course (most frequently in the social sciences) or a whole curriculum (much of this research is still unpublished and Professor Jacob's review with its extensive bibliography is very useful). In addition he visited a number of colleges and talked with knowledgeable teachers and administrators, and he read autobiographical and other materials in which students set forth their hopes and aspirations. He concluded that, on the whole, specific courses or even a cluster of courses made very little difference in the outlook of students; that, for instance, courses in international relations did not make American students less isolationist or less averse to foreign service —even though students in such courses might imbibe great quantities of information.[7] However, he also concluded that colleges as a whole made little difference, and his picture of the college graduate of to-day has struck many of his academic readers as all too accurate. Outside of a minority, concentrated in a few colleges of high seriousness, Jacob describes American colleges as having

> a socializing rather than a liberalizing impact on values. [College] softens an individual's extremist views and persuades him to reconsider aberrant values. It increases the tolerance potential of students towards differing beliefs, social groups and standards of conduct so that they can move about with minimum friction in a heterogeneous culture. It strengthens respect for the prevailing social order.

This is so even when the students' families regard the values acquired by their children at college as unconventional; they are unconventional only from the point of view of the elderly who have not themselves attended college.

---

[7] A recent study done at Cornell indicates some qualification of this finding in the *Jacob Report*. See Morris Rosenberg, with the assistance of Edward A. Suchman and Rose K. Goldsen, *Occupations and Values* (Glencoe, Ill., The Free Press, 1957), in which some evidence is presented from a study done at Cornell University that students majoring in the social sciences may in fact be more oriented towards public (though seldom directly political) service than students in engineering or chemistry. However such conclusions from a specific institution are not conclusive; on at least some campuses, students in literature, philosophy, or physics might be more 'liberal' than many in the social sciences.

Professor Jacob is not complaining in these remarks that students are in college primarily to have a good time. The function of college in Western history has often been to transmit the manners and style of life of a ruling élite, while incidentally also keeping alive among a few a traditional heritage of learning; the ' good time ' that students have has been a by-product of this function. Most American college students of to-day, however, though enormously privileged (like America itself) in contrast to the planet as a whole, are not members of a self-conscious élite, nor are they out principally for a good time. Instead, Professor Jacob sees them as vocationally minded in a narrower sense, purposively acquiring the technical mastery and pleasant personality that will serve them as complacent members of business and the professions and as smugly serious residents of subtopia. He is quarrelling with the students, not for their gaiety or frivolity (much less in evidence than before World War II), but because they conform all too readily and unprotestingly to the prevailing winds of American life and doctrine. Although as I have already noted, many faculty members have had misgivings of just this sort on the basis of their own experience, others prior to the *Jacob Report* had somehow assumed that their own values were more contagious than this study shows them to be (especially perhaps in the absence of active opposition). I shall return later to these general conflicts of value—including conflicts within the faculties themselves—but I first want to comment on some of the methodological problems in the researches on which Jacob relies.

Jacob is not a psychologist, and he accepts perhaps too readily a kind of research-design favoured by many American educational psychologists (which would certainly not pass muster with such social scientists as D. W. Harding or Paul F. Lazarsfeld or W. E. Stephenson). In these studies a psychologist administers a ' values ' scale, let us say, to one section of an introductory course and to a control group not taking the course, on a ' before ' and ' after ' basis, and then finds that the course did not have a ' significant ' impact (using ' significant ' here in its statistical sense) in changing values one way or the other. This procedure ignores sleeper effects, ' leakage ' from those taking the course to those not taking it, decisive impact on a few students, great but offsetting impact on different groups of students, and so on.[8] Since such psychologists have a narrow focus, it seldom occurs to them to inquire whether students who have been exposed to American advertising and pitchmen ever since they could sit upright before a television set might not have acquired unusual resistance to 'propaganda'. (There are, of course, some American psychologists who have a better sense of these things; for instance, the students of communication and persuasion whom Carl Hovland has gathered around him at Yale.[9])

---

[8] It may often happen that at a campus where ideas are taken seriously, Professor A in the course which is being studied is recruiting a few average disciples while Professor B across the campus is helping polarize a number of other students in the course against Professor A.

One of the problems here is that little research has been done on the congeries of influences to which people in America are exposed between the ages of 17 and 21. The early years of childhood and the 'Oedipal' years of adolescence have been intensively studied, thanks in part to the Freudian revolution in American psychology and in part to the general preoccupation of Americans with their children. The later years of the lifespan have also been studied in great detail in recent years. Moreover, sociologists and social anthropologists have increasingly studied such institutions as factories, department stores, hospitals, and government offices; and as previous volumes of the YEAR BOOK testify, they have assiduously studied secondary schools. Colleges have not been a 'problem' in the way that the slums or old age or the public (in the American sense) secondary school have been problems, but in any case college is all too close to home for the researcher who prefers to study problems 'out there'. Beyond such considerations, any research which aims to understand what happens in college must come to terms with a setting of great complexity. Colleges are not pre-contact island tribes; they are more like 'small town in mass society' than they are an isolated 'Plainville, U.S.A.'[10]; and those few investigations which have treated college as a four-year 'campaign'—and hence studied change longitudinally from entrance to graduation—have taken years to complete. This is true of the study of Bennington College (perhaps as close to an island tribe as one could find outside small denominational schools), which, as already mentioned, examined the ways in which the liberalism of leading faculty members is transmitted by influential upper-classmen to entering students from less emancipated backgrounds.[11] The Mellon Foundation studies at Vassar (in addition to interviewing alumnae from different college generations) have pursued Newcomb's lead in delineating the various sociometric groupings in the student body, the way these induct freshmen into different versions of Vassar, and the different images of the relation of their college years to later life.[12] However, in Professor Jacob's account these notable studies carry hardly more weight than those studies which make simplistic comparisons in terms of pen-and-pencil tests between students exposed and not exposed to a particular course in human relations. This may be one reason why his overall verdict as to the effectiveness of college is so bleak.

---

[9] Cf. Carl I. Hovland, Irving L. Janis, and Harold H. Kelley, *Communication and Persuasion: Psychological Studies of Opinion Change* (New Haven, Yale University Press, 1953).

[10] I refer here to several influential community studies, to which might be added the well-known 'Middletown' studies by the Lynds or the 'Yankee City' studies by W. Lloyd Warner. See Arthur J. Vidich and Joseph Bensman, *Small Town in Mass Society* (Princeton, Princeton University Press, 1958); and James West, *Plainville, U.S.A.*

[11] op. cit.

It seems to me that the struggle which occurs in college between the efforts of some of the faculty to 'socialize' the students into scholarship or some comparable ideal and the efforts of the rest of the culture (including much of the faculty) to use college as what Robert K. Merton terms "anticipatory socialization" for upper-middle-class existence, cannot be understood purely in terms of the trajectory of individuals; sociological or anthropological concepts and methods are also required —concepts dealing with mutual acculturation, the formation of subcultures, and the impact of mutual expectations and pluralistic ignorances.[13]

However, it is not as a technical review that Professor Jacob intends his work, but rather as an overall judgment of the student culture to-day and of the faculty's irrelevance to it. He mentions the possibility but does not seriously discuss it that many faculty members, much as they may vocally deplore the political apathy and Philistinism of students, may welcome it unconsciously as a justification for their own preoccupation with research and lack of interest in or even fear of undergraduates. Nor does he fully confront the fact that a strong minority of faculty members at leading institutions believes that college should serve only to give intellectual training and not at all to form a community nor to alter student values, let alone to liberalize them, save as such changes may indirectly be influenced when clarification and dialectical sharpness encourage more rational judgments concerning both the goals students already have and their outlook on issues beyond the academy. Many men of this outlook would violently reject Professor Jacob's ethics as those of a Boy Scout (one may comfortably preserve one's scorn for Boy Scouts while one's own students remain highly motivated, intelligent, and rarely delinquent). Others might share Professor Jacob's position but still believe that moral influence over students is best kept implicit, a little like the ' silent trade ' ethnographers have described. The American university to-day, more I would think than big business, is a refuge for individualists and entrepreneurs who tend to shun explicit commitment to communal or collegiate values other than those implicit in their own discipline or in a religion of science. Many such men entered academic life in protest against parochial values in their home settings—and they may continue to feel that it is their task to shake students loose from parochialism, confident that this is still the enemy and that students will come out all right, as they feel they themselves did, once the students have been shaken loose. At times, to be sure, such professors may be ambivalent concerning those ties with students which are based only on mutual interest in a professional or pre-professional task: they may regret not having a wider fellowship with undergraduates on the basis of shared non-academic concerns (a fellowship the sports coach may have more readily than many teachers), but they may also realize that a student audience can interfere with scholarly pursuits and even, at many institutions, with the esteem of colleagues.[14] Yet, in spite of complexities of this sort within the faculty's own outlook, as this varies from institution to institution, from department to department, and almost from year to year, very few of the studies on which the *Jacob Report* is built have studied faculties as well as students.[15] True, faculty members appear in some of the studies as individuals, as when a comparison is made between directive and non-directive instructors in different sections of an introductory social science course. And both influential departments and influential figures in them appear indirectly in the studies done at Wesleyan University concerning the colleges which have, on a *per capita* basis, a distinguished record in the production of scientists and of scholars generally.[16]

---

[12] Although the main focus of this work has been on students and has proceeded by interviews and psychological tests, there has been some reliance on participant-observation as well, and the sub-cultures among the faculty have not been neglected. Cf. for a preliminary report, Nevitt Sanford, Mervin B. Freedman, *et al.*, "Personality in the College Years", *Journal of Social Issues*, Vol. 11, 1956. I am indebted to Professors Freedman and Sanford for helpful discussion of the *Jacob Report* and related matters.

[13] Since the *Jacob Report* appeared, Professors C. Robert Pace and George G. Stern of the University of Syracuse have published *A Criterion Study of College Environment* (mimeographed, Syracuse University Psychological Research Center, 1958), where an ingenious attempt is made to get at the climate of the college by having individual students answer questions giving their image or legend about it, e.g. item 82, "very few things here arouse much excitement or feeling", or item 30, "professors are sympathetic to hard and honest effort even when the student's level of performance is not very high". Such a method may work with a college that is relatively homogeneous and where one is primarily interested in the students' ideology about the institution. But not all students are equally influential either in determining the climate or the local legends about it; and of course few if any are aware of the full impact of college on them, along with and in contradiction to other agencies of socialization. Jacob reports no studies by participant observers who, having graduated, could still 'pass' as undergraduates and have gone back to live in, but not quite being of, a college.

---

[14] As Professor George Z. F. Bereday pointed out to me in correspondence, interest in the *Jacob Report* itself has been stronger among university administrators than among professors actively engaged in research; and among professors, those who have been concerned with the report are more alert to students and to questions of pedagogy than is fashionable in the sciences and in some of the major research-oriented universities.

Professor Jacob relies on the Wesleyan studies, and he adds to them a few others which indicate that there is a considerable overlap between those colleges which excel in turning out scholars and scientists and those which have a 'peculiar potency' in terms of their impact on student values. Thus, he cites evidence that Haverford, Wesleyan, Antioch, and Reed turn out students who are 'different': students with a sense of obligation to their communities and concern with international affairs. However, in looking at some of these studies (but by no means all of them), I have remained perplexed as to just what it is about these colleges which creates these differences. Take, for example, the autobiographies as of the year 2000 written by Haverford freshmen which indicate that they are less unwilling than other college students to consider some form of service to the world (in or out of government) as a possible career. Such accounts cannot distinguish ideology from commitment.[17] Moreover, they are insufficient to tell us whether that ethos was a factor in their choosing Haverford, or whether, in holding such views, they conform to the ethos of the college they happen to attend, and whether they would be equally adaptable to another social climate on graduation.[18] In the United States with its 1,800 accredited colleges, with the enormously rapid increase in those attending college, and with equally fluid changes occurring within the colleges themselves, it is not surprising that much choice of college is adventitious and that students sort themselves out into different colleges for all sorts of reasons and whims and on the basis of all sorts of misinformation.[19] Frequently, more or less happens than the students bargain for. For instance, Professor Jacob presents some fascinating data on differences between freshmen and upper-classmen at Michigan State University (one of the larger, more enterprising, and generally more ' nouveau ' of the so-called land-grant universities), which show that those who do not flunk out move from very moralistic and conventional anti-intellectualism towards permissive and emancipated values not very different from those entering as freshmen at Antioch (one of the most ' progressive ' of colleges)—of course, the Antioch freshmen in the course of their first year move still farther towards a liberal view. However, while Professor Jacob refers to the programme in general education in the liberal arts college at Michigan State University, he fails to explain what the relevance of this programme is—of course, this is not his fault for he must rely on the studies which have been done. Likewise it remains unclear what makes the difference at Antioch: is it the curriculum (in my observation, not markedly unconventional), or the faculty-student ties (unusually close),[26] or the famous work programme, with the

---

[15] Similarly, industrial sociology began by studying workers and not managers, and the ways in which only the former restricted output. And students are of course a notorious captive audience, while faculties would be such only in a college so benighted that the staff would probably not have any efficacy, anyway. In the two cases I know of where anthropologists have been turned loose on a college campus (Yale and Vassar), many on the faculty were extremely restive; at Vassar the work continues only with unequivocal presidential support, while at Yale it was discontinued.

[16] See Robert H. Knapp and H. B. Goodrich, *The Collegiate Origins of American Scientists* (Chicago, University of Chicago Press, 1952), and Knapp and Joseph J. Greenbaum, *The Younger American Scholar: His Collegiate Origins* (University of Chicago Press, 1953). There are problems of methodology in these studies, which lump together colleges devoted exclusively to the liberal arts and those combining liberal arts with pre-professional training—problems also in assuming that scholarly and scientific vocations are an adequate test of the quality of a college. There are also problems in assuming that the quality of a college has anything like as much to do with its faculty as with the selection of students who, for whatever reason, choose to go there—a criticism stressed by John L. Holland in "Undergraduate Origins of American Scientists", *Science* (September 6th, 1957), pp. 433–7. Still, these detailed and careful investigations by Knapp and his colleagues are an essential first step towards a comparative analysis of colleges.

[17] I do not mean to deprecate the interest and relevance of students' ideologies which, when studied comparatively, can at least be a first step towards under-

---

standing. Cf. James M. Gillespie and Gordon W. Allport, *Youth's Outlook on the Future* (New York, Random House, 1955), where such autobiographies were gathered from students in many countries, along with questionnaires as to preferred values; Professor Jacob finds this study among the most valuable in delineating specifically American values, as well as in distinguishing among the colleges in this country which contributed to the Gillespie–Allport research.

[18] From my own visits to Haverford I would think it likely that some genuine change occurs in some students and not merely that they take on the protective colouration of conformity to an ethos of non-conformity, though this of course happens too.

[19] Colleges do not help the situation by the frequently misleading institutional advertising that appears in their brochures or by the hurried visits that students accompanied by parents and advised by harried secondary school teachers pay to colleges, usually in the spring before entry. Cf. my discussion of the possibilities of more rational selection in the Preface to the Anchor edition of *Constraint and Variety in American Education* (New York, Doubleday & Co., 1958).

[20] In a recent monograph, Alvin W. Gouldner has described the conflict faced by members of the Antioch faculty and administration between loyalty to their discipline and the wider intellectual world and loyalty to the Antioch College community itself, located in a small Ohio town, and the strenuous demands for

selectivity it implies and the ethos built around it? In dealing with the impact of college, one must do without the framework of biological stages which has guided, perhaps misguided, studies of the socialization of children; one is dealing with variables which can seldom be controlled, or even isolated and defined; intensive studies of individual schools or programmes can be understood only in terms of finding comparisons with other schools or programmes which contain some but not all of the same features.

Moreover, to answer the questions Professor Jacob asks, we must select, among the infinite conceivable comparisons, those that might bear on the independence, idealism, or integrity of students. And of course these qualities may be unevenly cultivated by different sorts of undergraduate experience. For example, Professor Jacob includes Harvard as one of the colleges of 'peculiar potency', attributing to its impact the development of a certain autonomy among the students. Autonomy, however, may be the unintentional outcome of the cosmopolitan nature of Harvard, of the variety of sub-cultures it includes, and of the lack of any cohesive impact of the faculty. Professor Jacob mentions but perhaps does not fully appreciate the significance of a study by Professor Samuel Stouffer, which used Harvard students as subjects and which indicated that many of them apparently lack any great sense of solidarity with their friends; at any rate, they would turn them in to the authorities for cheating or other offences if by not doing so they might endanger their own standing, while they would protect or cover up for their friends if it would cost them nothing to do so.[21]

---

faculty participation along with students in communal affairs. See his articles, "Cosmopolitans and Locals: Toward An Analysis of Latent Social Roles", *Administrative Science Quarterly*, Vol. 2, 1957, pp. 281–306; and Vol. 2, 1958, pp. 444–80.

[21] See Stouffer, "Analysis of Conflicting Social Norms", *American Sociological Review*, Vol. 14 (1949), pp. 707–17; and Stouffer and Jackson Toby, "Role Conflict and Personality", *American Journal of Sociology*, Vol. 56 (1951), pp. 395–406. In the test items in these studies, nearly 40 per cent of the students would shift, depending on the consequences for themselves, of protecting their friends (in situations involving cheating, accidents, etc.). Perhaps they deprecate themselves unduly; possibly they are cynical about 'friends'. Professor Stouffer in discussion has indicated his agreement with my surmise that students at other universities would be more inclined to say that they would go down the line for friends, even at the cost of some risk to self. In correspondence, Professor Toby has pointed out that the Harvard students are genuinely caught in a conflict (the very point of the experiment) between the morality of universalism—they value scholarship and academic competition too highly to condone cheating *per se*—and the morality of particularism, that is, of friendship itself; and they can rationalize being influenced by the likelihood of discovery by relying on the universalistic side of the dilemma they would acutely feel even if they let their friends escape.

By giving Harvard students the plus label of 'autonomous', he praises their independence and unconventional thinking while underplaying the privatism, even solipsism, he elsewhere deplores,[22] and lumps them with students at colleges like Haverford, Macalaster, and Wesleyan,[23] which appear to inculcate a greater sense of community, of concern with student government, and with international affairs.[24]

Research on higher education must confront the possibility (which underlies so much of Durkheim's thinking) that loyalty to the ideal of individualistic excellence may be at odds with unequivocal loyalty to the college, the state, or the nation. Professor Jacob does not ask what a college would be like if it were as big and complex as Harvard and yet tried to instil the values dominant at a much smaller, less urban, more homogeneous, and perhaps selective college.

Gemeinschaft is all too easily achieved at those big American state universities of the second and third rank where student solidarity, enshrined in fraternities and sororities, confronts a faculty culture so comparatively feeble and unprotected that nothing the latter would do could readily influence the former; students at such colleges, when asked to read a book they think beyond them, or which is not a free text, will turn in blank pages on the exam.[25] Undoubtedly, the expansion of enrolments in recent years has diluted the meaning of college for many who attend: there is no sharp break from high school, but rather a relatively casual transition, and an expectation that college is an essential step to entering the jobs and the social worlds of the better white-collar *milieux*. These students do not expect to be changed, any more than they (or, in large measure, their parents) expect this from high school, and the institutions of the student culture may be regarded as forms of inoculation against change.[26]

---

[22] A highly critical picture of Harvard undergraduate life, its rivalry, *anomie*, and escapism, is presented in the issue of the student magazine, *IE*, devoted to the university in 1956; at the same time, the very sardonic and bitter quality of this journal can be taken as testimony to the vitality and surreptitious idealism among some small minority of students.

[23] From these examples, to which Oberlin might be added, it would appear that there may be a point in the career of a college emerging from control or influence by the churches when its once-religious values can be effectively transmuted into more or less secular social action. But Bennington and Sarah Lawrence, *inter alia*, have somewhat analogous outcomes from quite different starting points. [For an admirable account of what the faculty's aims at Sarah Lawrence are, see Harold Taylor, ed., *Essays in Teaching* (New York, Harper's, 1950)].

[24] To be sure, many Harvard students are *interested* in international affairs, in the sense of keeping up with the news or even in the sense of concern; but relatively few would seem to be involved in actions such as bringing over Hungarian refugee students, joining peace marches, or running forums, in comparison with other colleges Jacob mentions as having a desirable impact.

[25] Professor Jacob discusses the students' widespread condoning of cheating on exams as if this betokened a clear rejection of intellectual norms, as well as moral ones; no doubt it frequently does. But, as Hartshorne and May warned, it is easy to over-interpret cheating. At some colleges, students cheat to get into graduate school or to keep their scholarships, while still engaging actively in intellectual and artistic pursuits—and if some students do this, others may feel forced to do so, either in academic self-defence or not to appear as prigs and rate-busters.

At the same time this very expansion of higher education, this assumption in many strata that attending college is the regular thing, is an aspect of a general cultural shift in which ' collegiate ' values have become more broadly disseminated. Some of those who chose against odds to go to college in previous generations were profoundly influenced, not to say uprooted; but many others—the coon-coated *jeunesse dorée* of the 1920's, for example—were more thoroughly insulated against change than most of their seemingly indolent successors are to-day. Hence I am inclined to think that if Jacob had done his study a generation earlier he would have found even less emancipation as the result of attending college (though, arguably, more easily verbalized principle and commitment) than at present. Recent opinion polls make clear that the college-educated differ substantially in outlook from those who have not attended college—a paradox to faculties who believe themselves impotent and to students who believe themselves thoroughly defended against being influenced. Stouffer's *Communism, Conformity and Civil Liberties* (though he does not break his data down by type of college) makes this loosening and liberating effect amply clear.[27] It is most dramatically visible in the South. Even though the Southern colleges discussed by Professor Jacob show up as the least emancipated, nevertheless the Southerner who goes to college for four years takes a giant step, coming to approximate the values shared by the college-educated cadres in the United States as a whole—preparing himself in this way to move into the national upper-middle-class executive and professional world with its urbanity and flexibility.[28]

---

[26] Or, more accurately and in terms of the work of Talcott Parsons and S. N. Eisenstadt, student culture protects the members of an age-grade who are going through some very difficult changes from having also to accept all the specialist or nakedly achievement-oriented values their teachers or prospective employers would like them to acquire.

There is a good deal of scattered evidence, not considered by Professor Jacob, concerning traumatic changes where college proves disorienting to students. Cf., e.g., Arnold W. Green and Stuart D. Loomis, " Pattern of Mental Conflict in a Typical State University ", *Journal of Abnormal and Social Psychology*, Vol. 42, 1947, pp. 342–5; and Dana L. Farnsworth, *Mental Health in College and University* (Cambridge, Mass., Harvard University Press, 1957), especially *ch.* 4. I agree with Professor Jacob that college should not be innocuous, but experience at several of the colleges of undoubted potency gives me a vivid sense of the possible casualties of impact. To be sure, bored alumni twenty years after graduation, who never read a book, are perhaps also casualties, though ambulatory ones.

[27] New York, Doubleday and Co., 1955; and cf. my discussion in " Orbits of Tolerance, Interviewers and Élites ", *Public Opinion Quarterly*, Vol. 20 (Spring 1956), pp. 49–73.

Despite inundation, colleges get ' better ' in much the same way that unionized industry does; there is improved management, better organization (including larger staffs for personnel and like ancillary affairs), better ' tools ' (in terms of texts, readings, carefully planned examinations, etc.),[29] so that ' productivity ' slowly rises and the general upper-middle-class community becomes perceptibly more exposed to intellectual culture, despite resistance of students to being influenced. Correspondingly, I believe it is a misunderstanding of the present student generation in the leading colleges to regard it as 'materialistic', as Professor Jacob (and many other critics) do. While, as I have already suggested, it seems clear that these students are not idealistic or radical or politically concerned in the manner of students in other countries,[30] it does not follow that they are simply self-centred hedonists. There is no evidence that they are hungry for possessions or financial gain. They want salaries which seem to me rather modest to support, not splendour, but an unostentatious 'good life' (though they don't fully appreciate how much this costs)—a life that, for them, includes *civic* concerns in the suburb but not *political* ones in the world at large. They are hoping to become affectionate spouses and parents; they are devout believers in decent personal relations—and this is one source of the tolerance and lack of bigotry that Professor Jacob notes. In clinging to such hopes and standards these students seem to me markedly idealistic, however much one might criticize their limited goals. Both cross-generational misunderstandings and changes in the semantics by which idealism is concealed and revealed may serve to confuse researchers as to the motives of students to-day.[31]

---

[28] Though Southerners who attend but do not graduate from college show up in Stouffer's data as closer to the values of the high-school graduate than to those of the college graduate, the *Jacob Report* does not discuss the impact of college on the many students who flunk out in their first or second year at the big, non-selective state universities. This number at times goes as high as 40 or 50 per cent. (At the distinguished women's colleges, such as Vassar and Smith, often a third of the students drop out before graduation, sometimes because they have gotten married—in which case they may continue their college education at their husband's place of residence—and sometimes because they want to meet men at a co-educational college.) I know of no research as to the effect of college on the various types of drop-outs—to discover, for instance, whether those flunked out of the state universities harbour deep resentments against the educated, or a continuing hunger for learning, or an affectless veneer about their encounter with college. Professor C. Arnold Anderson has pointed out in this connexion in conversation that European universities, as part of their system of enforced early decision (like that of the famous 11-plus examination in England) may create more bitterness among the totally excluded than the American universities which even to-day, with all the pressure to get into college, give nearly everyone not on the bottom rungs of the economic ladder at least one crack at college.

The studies on which Jacob relies were mainly done before the great spread of the movement for junior and community colleges which offer a two-year post-high-school education, sometimes sifting out those who care enough and are capable enough to go on for their last two years at a four-year institution.

[29] Professor Jacob cites the various studies in which the F-scale or some other test for authoritarianism or rigidity has been administered to college populations. And he discusses the work which has been done, notably by George Stern and Robert Pace at the University of Syracuse and Benjamin Bloom at the University of Chicago, on the sort of classroom atmosphere in which students of this bent learn most readily. I am leaving out of this review consideration of this whole area of fitting teaching techniques to specific student personality types, though undoubtedly any full-scale investigation of faculty impact and student resistance would have to take account of Lewinian and other ways of getting at classroom atmosphere. And, of course, classroom atmosphere reflects campus-wide atmosphere as well as the more general pressures from outside. Compare, e.g., a study of Lauren Wispé which showed that students who themselves preferred a permissive instructor who encouraged their participation yet would choose a directive and authoritarian one in a highly competitive and examination-oriented university: " Evaluating Section Teaching Methods in the Introductory Course ", *Journal of Educational Research*, Vol. 45 (1951), pp. 161–86.

Thus, I am inclined to think that the lack of *specific* impact of colleges to-day on many of their students is a tribute to their *general* effectiveness, for the middlebrow culture of America has been decisively influenced by academic values, both through attendance at college and spread of ' collegiate ' values through the major networks, the Luce and similar publications, professional and business conventions, and in-service training. The words ' hick ' and ' rube ' have almost disappeared from the lexicon of epithet; high schools have not only many of the trappings of college but, at their suburban and rare urban best, are academically in advance of the poorer colleges; and freshmen in college, seldom treated as ' frosh ' to be hazed, are quick to catch on to what the going image of the college is. Indeed, the very receptivity of a large number of able college students to-day may give faculty members accustomed to a headier dialectic the feeling of dealing with shadows. But this very cool precocity of the better students helps immunize them, by the process of partial incorporation, against further adventures in heterogeneity. They may in fact be unconsciously willing to permit their teachers to form a depressed and despairing estimate of them, in order to be spared in this way the dangers of commitment, of perhaps unsettling involvement in the preoccupations of the faculty, while preserving the right to condemn the faculty for its lack of contact with them.

---

[30] There is some slight evidence, though it scarcely appears in the Gillespie and Allport study previously mentioned, that European students are becoming in these respects more like the American ones, especially of course in the wealthier and more democratic countries. Compare, e.g., Karl Bednarik, *The Young Worker of To-day: A New Type* (Renée Tupholme translation, Glencoe, Ill., The Free Press, 1955); and Hans Rogger, "Frustration and Boredom in Russian Youth", *The Reporter*, Vol. 18 (February 20, 1958), pp. 17–20.

[31] Much of the evidence in the *Jacob Report* is based on pen-and-pencil tests, but even the so-called projective tests may not always serve to evoke the values of the wilier students; certainly the F-scale will not catch many contemporary modulations of bigotry, and I suspect that even the T.A.T., though not readily faked, may not muster the affective gamut of the most sophisticated students. Indeed, the latter may not care to take tests; thus the seniors at Vassar, being less docile and conventional than the freshmen, have been more resistant to submitting to psychological tests and questionnaires (which, at least in the Ivy League, are associated with the hidden persuaders and conformity) until convinced of their importance and relevance.

Since writing the foregoing, I have had a chance to read Otto Butz, *The Unsilent Generation* (New York, Rinehart, 1957), in which eleven Princeton seniors anonymously "tell all"; they appear to me an odd lot, more exhibitionistic, more given to slogans, and more smugly disturbed than the Princeton students I have had contact with.

In this new situation which is the result of widespread cultural advance, it is quite possible that the effectiveness of some of the small liberal arts colleges (as revealed by the Wesleyan studies) may in part reflect the presence of many students who, to start with, are not cosmopolitan enough to escape their teachers, and also the fact that the extracurricular activities of these colleges provide only meagre competition with the curriculum. The small size and non-metropolitan setting of these colleges, facilitating close contact between students and faculty, would seem to be a factor in this process; and many readers of *Changing Values in College* will conclude that the principal institutions which create a definite counter-culture are the small ones that are not dominated by a graduate faculty and are not mass institutions.[32] Yet close contact *per se* is obviously not the whole story, for it is not an undiluted blessing when students are taught by men primarily preoccupied with them rather than with research; and the most effective colleges in the *Jacob Report* include those, like Antioch, Reed, Swarthmore, and Wesleyan, where faculty members actively engaged in scholarship help induct their best students into it. And I wish studies were available of

---

[32] My colleague, James S. Coleman, has clarified for me, on the basis of his current study of high school climates, how in a big school the faculty appears to the students as a monolithic entity, and vice versa, even if the student-teacher ratio is as favourable as at a small college—the differences are analogous to those between the large and small print-shops discussed in S. M. Lipset, Martin Trow, and Coleman, *Union Democracy* (Glencoe, Ill., The Free Press, 1956).

Columbia College and the College of the University of Chicago, where semi-autonomous faculties, embarked on demanding and adventurous programmes of general education, have had considerable impact even in a metropolitan *milieu*. As the general level of schooling rises and the numbers of entrants also increases, it becomes more imperative for the top universities which attract such very able students to see what can be done to live up to their new potential. While colleges, like all other institutions, waste talent, it is at the top that the possibilities for aliveness are often most neglected, in part because the students who come are already highly selected, serious, and intelligent, and emerge not less so. Many weaker colleges would be glad to have such a problem; many stronger ones do not know what to do with the leverage they possess.

We come back in the end to the aims a faculty has for its students and the relation of these aims to those of the society at large or some influential stratum of it. The studies that have been under way at Vassar show, as I have already indicated, that seniors emerge more open and experimental than when they entered as freshmen. The faculty have managed to draw a considerable number of them into academic and intellectual concerns. But then the seniors begin to realize that they will soon re-enter a world which, while it makes it ever easier for women to hold paying jobs, makes it perhaps less easy than in a more feminist era for them to have distinguished academic and professional careers.[33] In the cultural climate of to-day, at once ' permissive ' and conservative, the only approved goal that they themselves have is to marry and raise a family, but as they sink into suburban life they continue to feel guilt for having ' let their education down ' while at the same time reverting in some measure towards general middle-class norms and hence becoming more like what they were as freshmen and what their own daughters will presumably be as freshmen.[34] In spite of their earlier hopes, they end up not so differently from the ' accomplished lady ' of an earlier era, that is, competent domestic managers and patronesses or appreciators of the arts. In this situation President Lynn White, Jr., of Mills College, has argued that women's education ought to come to terms with this inescapable destiny and to prepare women more directly for their community roles.[35] Within the degrees of freedom which a college has there would seem to be some realistic choices here as to the educational outcomes faculty members want, but the present is a time of relative educational quiet in American higher education (although of enormous operational and financial turmoil). Some of the most interesting debate is occurring, if one excludes that in the women's colleges, at the technical institutes such as Massachusetts Institute of Technology or Case Institute in Cleveland or Carnegie Institute of Technology in Pittsburgh—at all these institutions there is a serious effort to review the technical and scientific curriculum and to make sure that prospective engineers and business managers receive a thorough training in the humanities and the social sciences—disciplines which are having to be re-examined themselves in this altered context.[36]

---

[33] Cf. my discussion in *Some Continuities and Discontinuities in the Education of Women*, John Dewey Memorial Lecture, Bennington College, Bennington, Vermont (1956).

[34] Cf. Nevitt Sanford, " The Uncertain Senior ", *Journal of the National Association of Women Deans and Counselors*, Vol. 21 (1957), pp. 9–15.

[35] *Educating Our Daughters: Challenge to the Colleges* (New York, Harper and Brothers, 1950).

The *Jacob Report* has had the virtue of renewing the interest of a good many teachers, researchers, and administrators in the larger questions of institutional impact and change.[37] Worry over the fate of higher education is perennial in America and the worry at present takes, of course, many forms in addition to that of Professor Jacob, including Cold-War or chauvinistic concerns about the recruitment and motivation of scientists, and broadly humanistic concerns about the fate of scholarship in an age of bureaucratization, projects, and enormously crowded universities. In terms of method and procedure, the *Jacob Report* reminds us of how much we argue and how little we really know. There will certainly be more studies of colleges in the next few years; they will be compared with each other and with other institutions in the United States and abroad.[38] But I am not sanguine that the result of the studies will be a sweeping wave of reform for, while the inferior institutions are still imitating the leading universities, the latter have little sense of what they should do next beyond doing better what they do well already. I am inclined to attribute both this poverty of goals and the present apolitical mood of the students, what Jacob terms their privatism, to similar large-scale developments in American society.[39]

---

[36] To be sure, some of this effort is mere snobbery on the part of faculty and students alike: even in America, as in England and on the Continent, high culture (in the non-anthropological sense, of course) has prestige and the engineer (and teacher of engineers) who can talk of Proust or Picasso or Bartok is likely to end up in the higher-paying jobs in contrast with the more specialized technician. But motives for educational reform are invariably mixed, and unquestionably some of the devotion to the humanities at these technical schools is uncontaminated by this subtle vocationalism.

[37] Cf. the recent study done for the American Council on Education by Edward D. Eddy, Jr., with the collaboration of Mary Louise Parkhurst and James S. Yakovakis, *The Dual Goal of Excellence: Report of an Exploratory Study of Character Influences and Programs in Selected Colleges and Universities* (Washington, D.C., American Council on Education, 1958).

[38] One model is provided by the studies now proceeding in the field of medical education under Robert K. Merton and his colleagues at Columbia and Everett C. Hughes and his colleagues at Chicago. Cf. Merton, George Reader, and Patricia Kendall, *The Student Physician* (Cambridge, Mass., Harvard University Press, 1957).

Professor Jacob and I can agree that we do not want colleges to polish people for corporate or professional success as Alphas in a Brave New World, nor do we want universities to become ganglia in the chain of communication in a Garrison State. But suppose, perchance, that we can escape both fates; what then? Is it not possible that the wry, resonant, and deflated quality of some of the most gifted and sensitive students—students who, seen as individuals, are in my judgment superior to their vaunted predecessors—reflects a *malaise* which no single institution can greatly affect?

DAVID RIESMAN.

---

[39] Cf. my discussion in "The Found Generation", *American Scholar*, Vol. 25 (Autumn 1956); and "The College Student in an Age of Organization", *The Chicago Review*, Vol. 12 (1958), pp. 50–68.

CHAPTER THREE

Freedom in the Argentine Universities before and after the Peron Regime

UNIVERSITY education was initiated in the Argentine with the founding of the University of Córdoba in 1613; it was one of the first to be founded in America, the only four to precede it were that of Santo Domingo in 1538, Mexico and Lima in 1551, and the University of Santa Fé of Bogotá in 1573.

The *National University of Córdoba* was the outcome of the northern missions which originated in Peru and was, and still is, very largely supported by the Society of Jesus, which founded colleges, seminaries, and universities. The atmosphere of these foundations was predominantly religious; little thought was given to scientific studies. The University of Córdoba, founded at the beginning of the seventeenth century by Fray Fernando Treji of Sanabria, an American by birth, maintained its theological complexion, being both theocratic and colonial. The basis of its studies was Latin, the arts, and theology, and it did not open its doors to the scientific and philosophical thought which had begun to infiltrate into most of the European countries. This university, so symbolic of Spanish colonialism, attained great renown, and it was said, in the eighteenth century, " that it was as celebrated in South America as the University of Salamanca was in Spain or the Sorbonne in France ".

With the expulsion of the Jesuits in 1767, the university passed into the hands of the Franciscans. It became progressively more secular and its whole spirit was gradually changing until about the year 1810, when the Revolution for emancipation started. In 1854 the university, hitherto provincial, became a national one. The over-ruling ecclesiastical spirit was maintained until the Presidency of Sarmiento, when the sciences at last gained some ground. This trend culminated in the foundation of the Faculty of Physics and Mathematics, which brought into it from Europe and the United States some notable scientists and specialists in mathematics, physics, chemistry, botany, zoology, and geology.

On July 3rd, 1885, Act No. 1597, known as the *Avellaneda Act*, was passed. It stated that the governing boards of both the universities of Córdoba and Buenos Aires should lay down their statutes in accordance with the points made in this Act. This Act was of great historical importance to the whole country because, in spite of its brevity and simplicity, it gave stability to the life and evolution of the national universities. In 1918 a movement for 'university reform' was initiated in the University of Córdoba; it was promoted amid much violence by the students. After this incident, the university followed a similar road of progress to that of the other Argentine universities.

After independence came to the United Southern Provinces, the University of Buenos Aires was established on August 9th, 1821. The city, which had been the capital of the Viceroyship of the River Plate, did not possess an institution of advanced education, in spite of all the efforts which had been made since the eighteenth century, following the expulsion of the Jesuits. This foundation represented a considerable advance in our cultural history; in departing from the theocratic education of the colonial universities, the new university restored a philosophical basis for political and social thought, raised the importance of scientific study, and brought about some adjustments in higher learning.

As a result of the Act, which changed the status of the city of Buenos Aires from that of a provincial capital to capital of the Republic, the university also passed from the control of the local provincial government and by a decree became a state dependency, when the province was annexed to the Republic on January 18th, 1881. It was decreed that successive modifications should take place exclusively within the framework of the Avellaneda Act. This was the case until 1947, when the Act was replaced by another. The University of Buenos Aires is the most fully endowed and the most important in the Argentine, and is recognized as having a certain ascendency over the other universities in the country.

Buenos Aires having been raised to the position of national capital in 1880, it was decided in 1882 that the City of the River Plate should became the provincial capital, and the seat of Government. It is understandable, therefore, why a movement followed in favour of the founding of a university in the new provincial capital. This was done on December 27th, 1889. It had four faculties: law, mathematics, chemistry, and medicine. Only the first three were functioning, however, with a department for midwifery.

From 1897 to 1905 the *University of La Plata* continued its work under precarious conditions, due to lack of material resources, a shortage of books and even of students. By 1904 its obvious decline was recognized. The nation and the province signed an agreement towards the end of 1902, in which the former ceded to the latter, gratuitously, all the teaching and research institutions it possessed. This agreement came into effect in 1903 and 1904. A great public figure, writer, and teacher, Joaquin V. Gonzalez, who did so much to further the cause of justice and public education, was responsible for the initial steps taken in the actual founding of the University of La Plata. From 1906 until 1910 he presided over this university, always maintained a modern outlook towards the practical and applied sciences, yet never lost sight of the high moral principles which are the backbone of any university. The name of Joaquin V. Gonzalez is remembered and recognized to-day as that of the founder of a scientific and experimental university which responded to the needs created by the progress of the civilized world, for the province of Buenos Aires and the nation, yet, at the same time, the university never lost sight of the importance of individual study and of training for the professions.

The *National University of the Litoral* was established by Act of Congress No. 10,861, approved on October 17th, 1919. It was on similar lines to the University of Santa Fé, created by a provincial Act on October 16th, 1889. Its most obvious characteristic was in the distribution of its faculties in various cities situated in the most important parts of the Argentine coastline; namely Santa Fé, Rosario, and Paraná, and originally Corrientes as well. This university is now an important centre of higher learning, having exceeded by far the expectations of its founders.

The *National University of Tucumán*, established by Act of the provincial legislature on July 2nd, 1912, has been dedicated, in its policy and studies, since its foundation, towards regional aspirations. It was nationalized in 1921. In spite of not being endowed with large resources, this university made rapid progress, thanks to the clear-sightedness of those who directed it. From a technical point of view it is a special centre which has planted its roots ' in a land strong and alive to practical needs ' without losing sight of its higher spiritual character.

The *National University of Cuyo*, founded in 1939, has responded to the scientific, technical, and cultural needs of the western provinces of the Argentine; Mendoza, San Juan, and San Luis. In these places there have existed, for a long time, technical colleges providing courses in subjects characteristic of the region, i.e. vinicology, mines, chemical and agricultural industries. To-day this university is a centre of higher culture where advanced courses are provided in science, philosophy, letters, the arts, and the teaching professions; all these are distributed in the various faculties.

The *National Southern University*, created by a decree of the provincial Government of the country at the beginning of 1956, on a basis of the Southern Technological Institute, follows a triple course of study: technology, economics, and the arts. It has its seat in the city of Bahia Blanca and imparts its influence over a vast area of 300,000 square kilometres with over a million inhabitants, covering the southern part of the province of Buenos Aires and all the Pampa, Rio Negro, and Neuquéan.

The *National North-Eastern University*, created by decree on November 29th, 1956, by the provincial Government, has the task of meeting the cultural needs of this important region, which comprises the provinces of Corrientes, Chaco, Misiones, and Formosa. Science, technical, and art faculties and institutes are integrated in this university, which is, at the moment, in the constructional stage and awaits full development.

University Reform and the Liberation Movement

Since the first statutes, the Argentine universities have been autonomous in relation to the national Government. Although not always financially sound, and unfortunately subject to infringements on academic liberty, within his university, the right of a professor to express the truth as he saw it was generally recognized by the state. Proof that liberty existed in the Argentine universities lies in the fact that during most of their existence there were professors with widely divergent political, social, and religious ideals, as well as ones with outspoken political views—these ideals and views were never curtailed. Only during the Perón Dictatorship was a university seat converted to the furtherance of political ends. It can be stated, with assurance, that the universities of the Argentine Republic, and for that matter all universities in Latin America, have always contributed towards national freedom. For this reason professors and students alike have always exhibited a spirit of rebellion against dictatorial regimes. This spirit began to emerge after the movement for 'university reform' in 1918, which originated in Córdoba (the Argentine) and reached all the Spanish-American universities.

It was, without doubt, a movement towards freedom on the part of the universities, promoted exclusively by the students and supported by some professors of a similar frame of mind. In spite of its ups and downs and much controversy, the 'university reform' movement can be considered an important stage in the progress of higher learning. It was inspired by the change in educational ideas and political opinions towards the end of the second decade of this century. An attempt was made to democratize the universities as far as the various courses of study were concerned; liberty for the universities was built up through free teaching in seminaries and research institutes, and improvement in libraries and laboratories. From then on, all professors in the various faculties were appointed on a competitive basis, and in this account should be taken of the usual practice of admitting foreign teachers and professors to the universities.

In the 'reform movement' the student's personality was recognized by acknowledging his right to decide what course of study suited him best. From a national viewpoint, the universities showed an interest in the problems of the country without breaking their link with universal culture. The reform also aroused a critical attitude towards the educational, social, and political problems of the nation and, indeed, of all America as well. From a spiritual point of view it created, in the new generation, a sense of duty and responsibility which produced in 1918 a kind of youth movement which exists to-day and is constantly being kept up to date. The sense of freedom was expressed by young people in the initial declaration of the reform in 1918: "To create American men is the most urgent task of the moment," and "even if we are dominated by Europe, we must be original—which is to be American." In short, we can say, that before the Perón regime, a state of freedom existed in Argentine university education.

Our universities, by the very nature of their ideology, should always be educational establishments with a social influence that is national as well as American and universal. They should also be the principal centres in the country of higher culture, be it in the professional, scientific, or spiritual sense. Faithful to national traditions, the universities should inspire democratic principles and remain constantly on guard to preserve freedom in teaching and research; this alone can bring an uplifted sense of spiritual dignity, and without it all efforts directed towards the betterment of humanity would be utterly useless and wasted. By virtue of this autonomy no professor could ever be censured for what he thought nor for the beliefs which might follow his teaching, provided he always kept to the principles and objectives of knowledge and followed the dictates of higher learning.

The Universities and Dictatorial Regimes

Academic liberty is infringed each time a dictatorship is imposed upon a nation. When public freedom comes to an end and human rights are not recognized or respected, there comes also to education a period of darkness in which man is regarded, not on his merits, but as a mere unit or instrument in an all-powerful state. In the place of scientific or cultural teaching, a kind of dogmatic propaganda is built up. It is accompanied by strategic and systematic intimidation. All independent channels are closed. Less and less regard is paid to the principle of objectivity, until it is even accused of being the cause of bewilderment and chaos. Only 'subjective' professors and students are wanted, animated by a blind passion which ends inevitably in political mysticism.

All this has been forecast since the first decades of this century. Professors and students of the universities understood that only in a democratic atmosphere, in which human dignity was respected, could the universities develop their mission of educating mankind and fulfil their various specific functions of research and professional teaching.

In 1931 the University Congress of America held its meeting in Montevideo. The Argentine delegation—at a time when in our country a regime had been imposed which had shown its willingness to infringe the autonomy of the universities—condemned dictatorships, and their deleterious intrusion into establishments of higher learning. Two congresses which took place a few years ago in Latin America—the First Central American Congress of Universities, which met in San Salvador in September 1946, and the First Congress of Latin-American Universities, which met a year later in Guatemala—stated that the highest ideal for our American universities was that they should all enjoy complete autonomy, materially and spiritually.

Although continually threatened, the concept of freedom for the university professor is each day gaining more sympathy from the public. For if his task urges him to maintain and contribute towards the moral prestige of the university and, at the same time, make his mission each time more effective, then he must be assured of his right to remain at his post, with all dignity, whilst discharging his duties and, above all, he must be guaranteed academic liberty. As a holder of a university chair he must enjoy full intellectual autonomy.

Subduing the Universities during the Perón Regime

After 1943 the Argentine universities entered a serious crisis, caused by the unsettled state of the country which ended in a dictatorship, following the military pronouncement of June 4th, 1943. Both professors and students spoke out against tyranny and in favour of the democratic principles which had inspired our teaching institutions. The universities were interfered with in May 1946, and, at the end of that same year, with Perón already in power during a constitutional period of government, the removal of professors for supposed political reasons began. Teachers and their assistants were exonerated, dismissed, or resigned in protest against the dismissals; all of which constituted an unprecedented blow to the development of the Argentine universities. One thousand two hundred and fifty professors were withdrawn or resigned their posts. In a few years the ruling power became unbearable. The autonomy of the universities was completely destroyed and academic freedom disappeared entirely.

Politics had invaded the university; but not the politics of high statesmanship, but rather of the worst type—of complete submission and unconditional obedience to a dictator. Two new university laws were made; one in 1947, soon to be replaced by another in 1953, which brought the universities even more under the power of the state. Instead of giving back to the universities the autonomy which had been denied them by the first law, the second one merely emphasized the Napoleonic idea of a university: the governing board of a faculty elected their dean for a term of office laid down by the Rector of the University, who was himself appointed by the President of the Republic. Thus in a single blow, all the efforts over many long years of campaigning by students for the principles of 'university reform' were brought to nought. One of these principles was the right of self-government. The declarations of successive national, American, and international congresses had stated that a university enjoys autonomy when its governing body is appointed solely and by the exclusive wish of its members; the management of its funds, the organization of its studies, and the composition and spirit of its directing board are in the hands of its students, professors, and directors. In using this power, they trust in their intellectual and moral authority, which is not an appointment by decree, but rather one of conscientious and responsible and devoted work. To all these resolutions the Perón university turned deaf ears.

Although gratuitous teaching was established, the university was no longer democratic, because there no longer reigned within its walls a propitious atmosphere for truly human gatherings. On the contrary, there were in evidence the most ominous signs of division or of separation into groups.

The university was placed at the service of propaganda; it became partisan, dogmatic, accepted imposition as a method of teaching, lost the objective meaning of truth, and many times in lectures the 'official truth' was uttered—the truth convenient to the regime. The university became belligerent and the doctrine of the regime which had been given the name of 'Justice' was maintained by means of propaganda and indoctrinization. Participation in the attempt to impose the ideology of the system (which was nothing less than totalitarianism) was partly through the preparation or apprenticeship of youngsters for the party. In a way, the complete annihilation of university life was brought about with the termination of academic freedom. Or rather, it was evident that the university had given in and accepted a totalitarian rule. In nearly all subjects, even in those very far removed from it, the party view was expressed, under the pretext of studying and commenting on the second Quinquenial Plan. ‘Citizenship culture’ and ‘national doctrine’ were taught in the form of, and as, new subjects.

During this unhappy time in the life of our national education, a continuous attack was made on the democratic creed—the most valued element in our national life. Our democratic origins and historical past were being overlooked. The school, college, and university became the antechambers of the party, which identified itself, perversely, with the nation itself, and very nearly all ideals of personal independence and intellectual objectivity were extinguished. For this reason publications on these subjects were few and far between, although there was an abundance of propaganda literature imbued with a confused ideology of ‘justice’. In the university, at the same time, there was a general lowering of standards; rules were broken or relaxed and certain methods were being employed which, before the Perón regime, would never have been permitted. In the University of La Plata, for example, people were being admitted to its faculties, colleges, and institutes without having the necessary qualifications. Generally they were older people who had reached a certain standard, not very advanced, and could give a good account of themselves. In this way, the entire idea of an organized democratic system of education disappeared, which is the inevitable result when a regime of this kind is imposed upon education.

The very essence of the university spirit is denied when academic freedom is forbidden. A university should respect all political ideologies, all social creeds and religious convictions; but it must never be the instrument of a single political party.

The Recovery of the Spirit of Freedom in the Argentine Universities after the Perón Regime

The Dictatorship, which had made itself felt in every aspect of the life of the country during a decade, having at last fallen, it was of the utmost importance to re-establish all the places of advanced learning in the cause of democracy and freedom, and in order to progress in science and culture. The Argentine universities had to recover their self-governing status. University reorganization started with the recalling of all those professors and teachers who had left or resigned for political reasons between 1943 and 1946, as well as others who had suffered a similar fate later on. This was done in an attempt to repair the damage done to those professors who had been forced from their positions in the universities for defending high principles of the university and of human dignity. All these professors, as well as those who had remained at the universities during the Dictatorship, held their positions on a provisional basis. They, and all who wished to join a university, had to submit themselves to a tribunal which assessed their general conduct during the Dictatorship. After a laborious process, in which many opinions were aired, and values of different kinds argued about, the universities at last succeeded in solving the problem of appointing professors to their faculties in sufficient number to enable them to run their own affairs, and thus bring interference, in all its forms, to an end. In this way, the universities gradually regained their right to govern themselves. This alone made it possible for them to carry out their high objectives.

To-day each university has its own board of governors, with its respective organizations. It appoints professors, in all categories, without any political intervention whatsoever. The university draws up its own statutes, in preparation at the moment, formulates its own plans and programmes for study, grants professional titles, academic degrees, and scientific distinctions without any directives save those determined by itself. Deeds and accomplishments are rated with the highest degree of objectivity. This policy is quite the reverse of the one in operation during the Perón regime: then the indiscriminate granting of degrees '*honoris causa*' took place; amongst those so honoured were the Dictator himself and his wife. Under Perón two university laws restricted and oppressed real and effective autonomy, thus converting the universities into organizations dependent on the Ministry of Education or on a government department with the title of 'University Management'. They were directed by an administrator without any teaching or academic experience, but who, nevertheless, presided over meetings of professors and deans all over the country.

At the start of the Administration of the Liberation Movement, the Provisional President, General Lonardi, said that "the autonomy of a university should be as full as possible and should conform to its own spiritual make-up without being interfered with from outside". This design is being put into effect, and in spite of the obstacles faced and the resistance to the achievement of such lofty ideals, since the beginning of 1958, all the universities in the country are rejoicing in their right of self-government. Professors can carry out their teaching duties in an atmosphere of academic freedom, without experiencing, as was the case during the Dictatorship, that cunning system of detection which claimed to test their faithfulness to the party and whether in their teaching the necessary propaganda was given.

Although the general recovery of the universities, which began to take place during the first days of October 1955, was a tremendous task, two years later the necessary atmosphere had been restored. One principal pledge of the new authorities is to sanction a new statute for every university and, also, to hasten the improvement of teaching and scientific work. That is to say, the authorities are pledged to alter the present system of teaching; to assure the active participation of a pupil in all aspects of study; to revise old and obsolete laws initiated by the universities and the faculties; to encourage scientific research, together with a renewal of technical equipment; to procure, if possible, the complete dedication of professors and an increase in specialization without impairing cultural integration. Nearly all the universities have dedicated themselves to this programme of continuous improvement in which professors, graduates, and students co-operate. These, having been democratically elected, constitute the governing board of a university.

The new Rector of the University of Buenos Aires, Dr. Risieri Frondizi, stated, when taking over his post on December 27th, 1957, that a university should always be alert to social, political, and economic changes and look into their implications. He recalled that at times the universities had remained impervious to these changes, and this favoured an atmosphere in which demagogy in all its forms would thrive. He favoured realistic and democratic reforms which would recover the dynamic spirit of progress which had encouraged many generations of students from 1918. And yet, he added, that this reform should not remain static, but should rather pay attention to present needs and to a future full of promise. To-day all directives are towards that kind of university teaching in which the most important factors are a creative spirit and the student's personality, as well as the complete dedication on the part of the professors, in order that their task may not become only one of teaching, but also of research in the triple field of science, technology, and the arts. Dr. Frondizi said that "a university which does not make use of research becomes a parasitic institution, and its very teaching is weakened for want of a creative spirit".

This general spirit in the Argentine universities is tending to bring about a profound change which will affect all their functions and, eventually, also the predominance of professional training, by which these universities were characterized. In spite of the struggle since 1918 against over-conservatism, the Argentine universities have remained as professional training colleges, without doing much in the cause of research. The tendency now is for the universities to become what they should be: organizations for promoting higher learning and scientific research. In this atmosphere professional training can become very efficient. Apart from this, the Argentine needs the co-operation of the universities in the solution of its tremendous national problems—economic, political, health, cultural, etc.—all of which are becoming more pressing day by day.

In 1958 the Argentine universities were operating in a period of profound renovation and wider expansion of all their teaching. Their facilities are open to many without any class distinction whatsoever. Their wish is to be 'The University' to the nation without losing their high standards of education and learning. Opportunities are offered to all by the universities, so that everyone may follow, to the best advantage, his or her particular vocation. These universities wish to be, and in greater measure, communities of professors, students, and graduates in which all rejoice in their freedom to teach, learn, and improve themselves in an atmosphere of co-operation and goodwill. Out of the crisis produced by the Dictatorship there emerges the conviction that a university should be the spiritual bulwark against tyranny and violence. Before the events of 1945, a distinguished Argentine university professor, Augusto J. Durelli, said: "Perhaps never before, in all their history, have the Argentine universities shown more unity in thought and action before the whole country." This heritage allows one to be assured that, together with autonomy and academic freedom, go profound differences of opinion, unity of conscience and ambition to further the various ideological trends, which to-day are recognized by professors, graduates, and students of our universities.

JUAN MANTOVANI.

CHAPTER FOUR

*Problems of Freedom in University Education in South Africa**

THE *'open' universities,* Cape Town and Witwatersrand (Johannesburg), are English-medium universities in large urban areas with a student population of about five thousand each. The epithet 'open' indicates that "as far as possible they admit students on the basis of academic qualifications only and in all academic matters treat non-white students on a footing of equality and without separation from white students". The four Afrikaans-medium universities (Stellenbosch, Pretoria, Free State, and Potchefstroom) exercise their autonomy in this matter and do not admit Non-Europeans, although it is on record that at least one African student took a theology course at Stellenbosch in the last century.

The number of Non-Europeans at the 'open' universities is 5–6 per cent of the total. This year 490 Non-Europeans are at Cape Town. The number of Africans has long been stationary, rising from an average of 23 for the last ten years to 37 in 1958. In the same period the Coloured contingent rose steadily from 92 to 327 and the Asiatic from 32 to 126. A notable difference exists in the proportion of the sexes: among the Africans there is only one woman; 14·7 per cent of the Coloureds and 12·5 per cent of the Asiatics are women. The Witwatersrand figures for 1957 are 214 Non-Europeans (59 Africans, 20 Coloureds, 135 Asiatics).

As no *numerous clausus* is applied, the small number of Africans

---

* A note on terminology is necessary. In the United States the term 'Coloureds' comprises both Negroes and persons of mixed descent, and the word 'Coloured' is almost synonymous with Negro. In South Africa black people are known as Natives (a term which is resented among the intelligentsia) or Bantu—referring to the linguistic and cultural affiliation of the majority—or as Africans, which is the favourite expression among educated Africans, since it incorporates a political claim: "Africa for the Africans." The white population consists of two language groups: the English minority, and the majority who speak Afrikaans, a derivative of Dutch. This section of the populace calls itself Afrikaners, a term claiming historical rights and permanent domicile on the African continent. The term 'Boer' is obsolete, and might be resented to-day.

In this article we will distinguish Africans (blacks) from Europeans (whites). Where Non-Europeans are mentioned, reference is to Africans, Asiatics (mainly Indians), and Coloureds (mixed descent).

(and Non-Europeans generally) must be due to other factors. Since there is no adjustment of fees to parental income and the majority of state, municipal, and church bursaries are tenable at 'separate' institutions, many Africans go there. (At Johannesburg the composite fee for non-white students is reduced by £2 5*s.* since they do not enjoy all sports amenities.) The distribution of Non-Europeans over the faculties further shows that in certain departments a concession is made to the principle of segregation. The Faculty of Medicine at Cape Town admits Coloureds (54) and Asiatics (47), but has no facilities for Africans. This year no African students are registered in architecture, engineering, music, and fine arts (for which departments Coloureds and Asiatics number 21 altogether). In one or two departments the reason may be the difficulty experienced in placing Africans in apprenticeship. In the others the mores of the country may be the obstacle. The distribution over the main faculties reveals a weakness of the 'open' universities: the tendency of their African and to some extent Coloured students to crowd into the Arts Faculty. This year 16 Africans take arts (including 2 social science), 8 commerce and administration, 6 law, 4 science, and 2 education. (The corresponding figures for Coloureds and Asiatics are: 135/17 [1]—38/11; 5/1; 62/36; 26/0. The enrolment in science among Africans forms only 20 per cent of the total in arts and science together, among Coloureds 31·47 per cent and almost 68 per cent among Asiatics!

At Witwatersrand a quota system is applied for Non-Europeans who wish to study medicine. They are not admitted to dentistry and physiotherapy. Into the Departments of Architecture, Engineering, Music, Fine Arts, and Pharmacy, Africans have practically no access.

While juridically speaking all students receive equal academic treatment, it may be doubted whether the Non-European student receives an equitable deal. It is, for instance, impossible to speak of 'mixed classes', since only one or two Non-Europeans attend a large undergraduate class. It must also be admitted that certain handicaps under which Africans, and to a lesser degree other Non-Europeans, suffer because of their limited social heritage, must of necessity be neglected in such a situation. The Non-European faces the dilemma that legal equality is coupled with an educational disadvantage, that open competition between white and black students is as yet unfair to the latter, however desirable on grounds of principle.

At the 'open' universities there is no segregation at academic functions, i.e. at public lectures and graduation ceremonies. Non-European students are eligible for election to the Students' Representative Council on the same terms as European students. But considering their numerical weakness those elected may not always be elected on grounds of ability, but because they are Non-Europeans, or they may fail to attract votes for the same reason. They obviously have little chance to learn self-government.

---

[1] The first figure includes 13 doing librarianship and 4 social science; the second 1 social science.

In the provision of social amenities the 'open' universities fall below their academic standard. The university residences at Cape Town are for European students only. The cafeteria is open to all students and the queues are mixed, but most of the tables are segregated. Non-Europeans are free to join all students' clubs and societies. But their attendance at socials and dances is not possible. Similar conditions prevail in the field of sport. "Most of the students' sports clubs are affiliated to provincial or regional sporting associations and, while Non-European students may be members of clubs, they cannot be chosen to play for university teams in matches held under the auspices of these associations."

The 'open' solution with similar modifications applies to postgraduate study for Non-Europeans at the University of Natal and at Rhodes University.

The Differential Plan

This plan has been adopted by the University of Natal. Natal is an English-medium university with two seats: Pietermaritzburg and Durban. Non-European students are admitted in Durban only. In 1957, 2,800 students were enrolled, 900 in Pietermaritzburg, and 1,900 in Durban. Of these, 560 were Non-Europeans, including 200 students at the Medical School. The Non-Europeans thus form 30 per cent of Durban's total. The rapid rise in the absolute and relative figures for Non-Europeans can be seen from the enrolment in 1954, when 327 Non-Europeans formed only 22 per cent of the total.

The significance of the rise lies in the fact that within a radius of two hundred miles from Durban the Non-Europeans outnumber the Europeans by 10 to 1 (three million Africans, half a million Indians, and less than half a million Europeans). The time is thus not far distant when the Non-European enrolment at Durban will be larger than the European, as in fact it is already in some classes. The university is alive to this problem. Two Committees on Non-European Studies advise the council on policy and the senate on academic matters. Prominent Non-Europeans serve on them and keep the university authorities in touch with Non-European needs. An Organizer of Non-European Studies acts as counsellor to Non-European students.

The Differential Plan provides for separate lectures in separate buildings. They are given as far as possible by the same academic staff as the corresponding lectures for Europeans, often at great inconvenience to the staff, since with full-time and part-time classes for both Europeans and Non-Europeans some lectures have to be quadrupled. (Staff are contractually obliged to lecture to Non-Europeans.) The same syllabuses are used and the same examinations written. Defenders of the system argue that it allows of the adaptation of teaching to the *tempo* of learning and the outlook and experience of the Non-European students. An essential part of the Differential Plan is the system of fee-remission bursaries, which are graded according to the student's family income. Most Africans, for instance, qualify for a 45 per cent remission of their fees.

The African enrolment has risen from 24 in 1952 to 73 in 1958. The distribution over the faculties is as follows: arts 55 (including 10 post-graduate), social science 14 (1 post-graduate), commerce 1, education 6 (including 3 post-diploma), law 2. Fifteen students (i.e. 18 per cent) are women. No facilities exist for the study of science by Non-Europeans, except for post-graduate work, for which no entries are listed this year. Indians who wish to study for a science degree obtain permission from the Commissioner for Immigration to proceed to Fort Hare. It is refused for the purpose of studying arts.

No segregation exists at public functions and at graduation. There is an interesting differentiation in the system of student representation. The Non-Europeans elect their own Students' Representative Council. This council has direct access to the university authorities in matters concerning Non-Europeans only. Matters of interest to both European and Non-European students are dealt with by a Joint Board on which the executive of the three students' councils (Pietermaritzburg, Durban, Non-Europeans) are represented. This arrangement gives the Non-European S.R.C. status and opportunities to gather experience. They learn the proper procedures in student self-government and in approaching the university authorities.

Except for the medical students there are at present no residential facilities for Non-Europeans at Durban. Students are responsible for organizing their own societies and social functions, and these as well as their competitions in games and athletics are on a separate basis.

Separate Colleges

Separate colleges in association with white universities form the third kind of arrangement. There are two: the Medical School of the University of Natal and the University College of Fort Hare.

In the Medical School in Durban the pre-medical training is conducted in the suburb of Wentworth, where is also a hall of residence. The centre of the pre-clinical training is the Faculty of Medicine building at Umbilo. It is a single-block structure of six stories, erected at a cost of £400,000 [2] in 1954. Laboratories, dissecting rooms, museum, library, lecture rooms, and offices are in all respects equivalent to those of other schools of medicine in the country. King Edward VIII Hospital, a Natal provincial institution with one thousand six hundred beds for Non-Europeans, is the teaching hospital.

The medical school is primarily intended for Non-Europeans. (The university may admit a European student only with the consent of the Union Minister of Education.) There are about 100–120 applicants every year. Entrance is competitive within the limits set by the bursary policy of the South African Government and the Rhodesian and Basutoland authorities, which results in the annual reservation of 20–23 places for Africans in a beginners' class of 35. For students who do not receive loan bursaries no remission of fees is granted. The Government pays 100 per cent of the costs of the school. The faculty was opened in 1951 with 35 students. The leading group (12 out of a class of 14) qualified at the end of 1957. They are at present serving their internship. In 1956 the 170 students comprised 56 per cent Africans, 7 per cent Coloureds, and 36 per cent Asiatics. In 1957 the proportion of men to women was 133 to 27, i.e. women formed almost 17 per cent of the total. In the same year 15 students were Africans from the Rhodesias and Basutoland. This year's enrolment is 197 (preliminary year 41; first year 23; second year 51; third 23; fourth 18; fifth 23; sixth 18). Of these, 110 are Africans and 19 women, approximately the same proportions as in 1956.

The majority of members of staff of the medical departments (anatomy, physiology, pathology, medicine, surgery, gynaecology and obstetrics), and the heads of the sub-departments training in the specialities, are members of a joint establishment between the University of Natal and the Natal Provincial Administration. The staff of the Department of Social Medicine are members of an associated establishment between the same authorities. In both cases, joint and associated, staff members have a teaching responsibility to the university and a serving responsibility to a provincial institution. The separate character of the School of Medicine was underlined by the Dean of the Faculty before the Commission of Inquiry into Separate University Education: "By accepting teaching posts at a medical school where total racial segregation is applied, we have gone to the limits of our consciences."

The Durban medical course meets the requirements of the South African Medical and Dental Council for a minimum medical curriculum. There are two interesting additions to the traditional course, to accommodate which a seventh year, one more than in the white universities, is necessary. In the preliminary year first-year courses in arts subjects (English or Afrikaans, history and sociology), and introductory courses in physics and chemistry, are given—to overcome the Non-European handicap in basic schooling.

---

[2] £1 = 2·80 dollars.

The normal first-year courses in the physical and biological sciences are taken in the 'first' year, psychology in the third and fourth years. Social, preventive, and family medicine is part of the clinical training from the fourth to the sixth years, and is taken at the Institute of Family and Community Health at Clairwood. With such a course the Durban Medical School introduced a most modern emphasis to medical training in South Africa.

What has been said about the University of Natal concerning student responsibilities and student participation in social life applies also the Medical School.

University College of Fort Hare

The University College of Fort Hare has impressive buildings on a 'dignified site'. It was founded in 1916 after long preliminary discussions between missionaries, African leaders, and the Government. The Higher Education Act of 1923 classed it with the technical colleges, so that service conditions and disciplinary code were modelled on a more restrictive plan than other university institutions. At that time Fort Hare conducted matriculation classes to produce its own supply of students, and they were not dropped till 1937. The Financial Relations Consolidation Act of 1945 included "education provided by the South African Native College"—as Fort Hare was then called—in a category by itself, distinct both from universities and from technical colleges. The Report of the Commission of Inquiry into University Finances and Salaries, 1951, recommended that Fort Hare be considered on the same basis as the eight teaching universities, a recommendation on which the Government acted. ("The formula on which subsidies for general purposes are calculated favours the smaller colleges and ranges from 48 per cent in the case of Cape Town and Witwatersrand to 68 per cent for the University of the Orange Free State and Fort Hare.") In the Scheme of Government, gazetted in 1953, the college is described as a 'Christian college'. But no religious test is applied to staff on appointment or to students on admission. Since that year the college has been officially known as University College. The Universities Act (61) of 1955 defines 'university' as: "a 'university established by Act of Parliament and includes the University College of Fort

Hare'." Since Fort Hare has not been incorporated by special Act, it is a university *de facto* but not *de jure*.

The college council has a constitution which guarantees wide representation of interests in the higher education of Africans, missionary and government, European and African, past students and tribal authorities. The college was affiliated (by Rhodes University Act (15) of 1949) to Rhodes University, Grahamstown, an English-medium university with a white-student enrolment of about one thousand.

The affiliation implies that syllabuses, examinations, courses of study, departmental regulations are common. Fort Hare staff act as first examiners and the same external examiner serves Rhodes and Fort Hare. Where special syllabuses and separate examinations are felt to be desirable, they must be approved by Rhodes. Academic matters of mutual interest are discussed at Joint Faculty and Joint Senate meetings once a year. There is also co-operation in administrative matters: the Rhodes Vice-Chancellor is chairman of the Fort Hare Council. The affiliation was devised to safeguard the academic standards at Fort Hare (which had previously been taken care of by the University of South Africa) and to help it on the road to full independence.

The enrolment in 1958 was 434 students (plus 10 part-time B.Ed. students who will not be taken into account later). Of these, 56 are women or 13 per cent, which compares favourably with the 'open' universities and the University of South Africa. The distribution over the faculties is 170 arts (including 15 Bachelor and Diploma of Divinity students), science 176, education 48, theology 21 (Certificate), and agriculture 9 (the last two courses are pre-matriculation). The balance between arts and science is striking, and not equalled in any other institution in South Africa. The wastage of students in science is, however, greater than in arts, as is shown by a comparison of the proportion of students in the first, second, and third years: in arts it is 62 : 53 : 55, and in science 92 : 48 : 36.

Of the students, 311 are Africans (72 per cent), 59 Coloureds, and as many Indians (14 per cent each). The college was primarily built for the benefit of Africans. But Coloured and Asiatic students are admitted. Even Europeans are not excluded, and since its inception about a dozen children and wives of staff members have taken first-year or diploma courses at Fort Hare. Among the African Nguni-speaking students (212) preponderate, and among them the Xhosa with 167 exceed Zulu (34) and Swazi (13). Seventy-two students belong to Sotho-speaking tribes (this includes 34 Tswana). Twenty-eight represent a medley of other tribes. Thirty-one Africans come from outside the Union, mainly from the Rhodesias, a few from the High Commission Territories. A decade ago quite a number of students hailed from Kenya, Uganda, and

Nyasaland. But with the development of university colleges in East Africa and in the Federation, and with the threatened withdrawal of permission for 'foreign' African students to study at Union institutions, their numbers have decreased.

As to religious affiliations, 144 students are Methodists, 104 belong to other nonconformist groups (43 Presbyterians, 40 Congregationalists, 13 Dutch Reformed Church, 4 Paris Evangelical Mission, and 4 Baptists). Eighty-one are Anglicans, and with them can be counted 1 Ethiopian (Order of Ethiopia). Seventeen belong to Lutheran churches (including 4 Moravians). There are 12 Roman Catholics and 6 members of the American Methodist Episcopal Church. Six sects are represented but once. The number of Non-Christians is high: most Asiatics are Hindu (43), 10 are Moslems, 1 is a Buddhist, and 2 nondescript (an Indian and a Herero).

Of the 434 students, 167 come from large urban areas, 77 from market-towns (*dorps*), and 186 from rural districts. The age-composition shows for the first years an average of 21½ years, for the second years 22½, for the third years 24·2, and for fourth years (UEDs) 26·1. The Fort Hare student's age is thus approximately two years higher than that of corresponding white student groups. This is due to delayed entry at the primary school level, an extra year in the junior secondary school, and economic handicaps which necessitate students interrupting their studies to earn money to pay fees.

Two full faculties function at Fort Hare: Arts (with Departments in English, Afrikaans, Bantu Languages, Geography, Classics, African Studies—Social Anthropology—Administration, Philosophy—Politics, Law, and Economics) and Science (with Departments of Botany, Chemistry, Mathematics, Physics—Applied Mathematics, Zoology, and Psychology). The Department of Education runs courses for the University Education Diploma and the B.Ed. A Nuffield Research Fellow carries out investigations into rural schooling. The Department of Divinity and the Department of Agriculture prepare for Diplomas and Certificates. Plans for expansion include a strengthening of existing departments, so that post-graduate work can be done regularly, the separation of departments with two subjects, the establishment of a Department of Music and a Faculty of Law.

Fort Hare is a residential college, only a few students, *viz.* eight, live with relatives as oppidans. Three of the hostels take men and are conducted by churches (Beda Hall by the Anglican Church of the province, Iona House by the Scottish Presbyterian Church, and Wesley House by the Methodist Church of South Africa). Elukhanyisweni, the hostel for women, is a college enterprise. The four wardens of the hostels are members of senate and the wardens of the men's hostels assist as lecturers in the Department of Divinity.

Nobody can write about Fort Hare without mentioning that it has an atmosphere of its own. It is the focus of African aspirations in higher education, " a symbol of the status attained by Africans, a pledge of hope of future equality " (as the *Duminy Report* puts it). Informed Africans compare the standards reached at Fort Hare in academic, residential, and administrative facilities with those at white universities. But even in the remotest reserves Fort Hare is a word with which to allay the suspicions and inspire the confidence of illiterate tribesmen. The reasons for this are many : it is a ' first love ', its long history is not devoid of periods of anguish and glory, it has obtained the financial backing of African individuals and organizations of note. The most important reason, perhaps, is that Fort Hare has appointed Africans to academic positions on an equal footing with Europeans. Among the 38 academic staff, 11 are Africans. (In African studies: 1 professor, 1 lecturer; Bantu languages: 1 professor, 2 lecturers; economics: 1 senior lecturer who is head of department, 1 lecturer; physics: 1 senior lecturer; education: 2 senior lecturers; chemistry: laboratory assistant). The senior members have become spokesmen of educated African opinion. They are leaders of great prestige and power. In all other universities appointments of Africans with few exceptions are known only in the Bantu languages department.

External Studies

The External Studies University of South Africa, with administrative seat in Pretoria, offers another possibility of higher education for Non-Europeans.

From 1916 to 1951 the University of South Africa was a federal university incorporating six university colleges. When these became independent, the University of South Africa was reconstituted by the University of South Africa Act (31) of 1951. It is now required by law to conduct examinations for students not receiving tuition at any of the other universities. Provision for the tuition of these students is made by the Division of External Studies and private correspondence colleges. Possession of matriculation or exemption certificate admits to the university irrespective of race.

In 1957, 5,538 European students were registered and 1,085 Africans (called Natives in the classification of the university). The figures for Coloureds and Asiatics are 209 and 565. Of the five institutions in the Union which cater for Non-Europeans, the University of South Africa has the largest contingent. In 1954 it took almost 49 per cent.

Of the African students 970 men and 54 women were undergraduates;

61 men did post-graduate work. The proportion of men to women (19 : 1) is lower than in any of the 'separate' institutions. No increase has taken place in African enrolment since 1954; no statistics are available before that date.

The distribution over the faculties shows 883 African students doing arts (including 15 for social work and 2 for librarianship); 40 are in the Science Faculty; 36 in law (10 doing LL.B. and 26 a diploma); 25 in commerce and public administration, 2 in fine arts, and 61 studying for non-degree purposes. (No African student seems to have been enrolled for divinity or engineering.) The tendency which characterizes the 'open' universities is accentuated here, i.e. only 4·3 per cent (40 out of 923) of the combined arts and science enrolment take science.

All students of the University of South Africa are external. Any functions, such as graduation, are attended on a segregated basis, and so are vacation courses arranged by the Division of External Studies. Since there are no hostels the question of residential segregation does not arise. Nor does that of student representation. The same fees are payable by European and Non-European students.

Denominational University

Our fifth example is a denominational university: Pope Pius XII College at Roma, Basutoland. It is situated outside the boundaries of the Union. But Basutoland forms an enclave within Union territory. Moreover, Pope Pius XII College is an associated institution of the University of South Africa.

The college is a venture of the Oblates of Mary Immaculate. After unsuccessful negotiations to establish a representative hostel at Fort Hare, Roma was opened in 1945 with four lecturers catering for five students in one classroom. Since then a college meeting university standards has been built up. A site was allocated by the Paramount Chief of Basutoland. Massive tutorial buildings have been erected, an administrative block, and a men's residence housing one hundred students have been built, as well as two science laboratories which form the nucleus of a Science Faculty building.

In 1955 a formal agreement with the University of South Africa recognized the students at the college as a distinct group of students for administration and examination purposes. The university can approve Roma staff members as first examiners and the college has the right to submit modified curricula. The college is recognized as a centre for taking the University Education Diploma examinations and for the practical examinations in the sciences. The agreement also provides for reciprocal representation on the governing bodies of the contracting parties. In the same year the first graduation under the auspices of the

University of South Africa took place at Roma. In 1958 six arts graduands were capped by the Vice-Chancellor of the University.

The number of students in 1956 was given as 68. It rose to over 100 in 1958. Students of all races are admitted, the proportion of African, other Non-Europeans, and whites being approximately 85 : 10 : 5. The whites are mainly Catholic teaching personnel in training. The faculty proportions are arts 60; science 36; others 9; the science students forming 35·4 per cent of the total arts and science enrolment. Nineteen per cent of the student body are women, their numbers being swelled by teaching sisters in training. The college is residential, all races living together. There is a small women's hostel. Thirty-six Non-Catholics are on the roll. Of the students, 54 hail from the Union, 28 from the Federation, 20 from the High Commission Territories, and 3 from overseas.

The development of academic facilities is shown in comparative figures for the two years 1957–8. While, in 1957, 27 staff members (of whom 8 were shared by two departments each) offered 20 subjects (with 4 vacancies), in 1958, 31 lecturers offered 16 subjects. Of these 4 were listed with Dutch and 9 with Canadian degrees. They were, perhaps, the forerunners of the 12 professors of Continental universities who are reported to have volunteered for Roma. For 1959 and 1960 a number of junior appointments is planned.

Roma College was erected for " the higher education of African Catholics ". It is to serve the need for Christian African leadership. Since the ' open ' universities admit Non-Europeans on the two grounds that the academic criterion is more basic than race, and that university life is enriched through the expression of a variety of points of view and ways of life, their metaphysical starting-point is that truth has many facets and these can be harmonized in a higher unity through tolerance. Roma College, on the other hand, assumes that there is only one Truth, as expounded by the Roman Catholic Church, and that true unity is achieved, not through reconciling perhaps irreconcilable points of view, but through loyalty to the one Faith. " Catholic students will be expected to live up to it and Non-Catholics to respect it." It is assumed that by pursuing the one Truth with courage and self-denial the African leaders will contribute to the establishment of Freedom in Africa. This term, too, must not be understood in the political but in the religious sense. The college has, however, a social goal. For while the scholars perform the duty of self-improvement, they must not forget the upliftment of their fellows and the establishment of mutual understanding and peace in Africa.

To sum up the survey of university institutions catering for Non-Europeans in South Africa: the total number of Non-Europeans studying in them in 1958 is in round figures 4,000. They represent a population of 12 million (10 million Africans, 1½ million Coloureds, ½ million Asiatics). While they are greatly outnumbered by the 25,000 white students (in a population of 3 million), the South African figure for Non-European university students is by far the best in any country in Africa south of the Sahara, both in absolute numbers and in proportion to the total population. The figure is a pledge of the good intentions of the ruling white class as to the future place of the Non-Europeans in South Africa.

The Extension of University Education Bill

It is now possible to sketch some of the general problems besetting these institutions:

The intentions of the Nationalist Government (since re-elected for a third time with an increased majority) were made clear in March 1957 with the publication of the Separate University Education Bill. This Bill sought "(*a*) to deny admission of Non-Europeans to the universities of Cape Town, Johannesburg, and Natal; (*b*) to disaffiliate Fort Hare from Rhodes and transfer its administration from the Department of Education, Arts, and Science (which so far has catered for all universities) to that of Native Affairs, and its examination procedure to the University of South Africa; (*c*) to remove the Non-European Medical School from the University of Natal and bring it under the direct control of the Department of Education, Arts, and Science, and its examination procedure under the University of South Africa; (*d*) to establish other university colleges for Non-Europeans".

As a result of strong opposition the Government withdrew the Bill on the legal grounds that it was of a hybrid nature, i.e. one which affected not only public interests but also private rights (e.g. of the churches owning property at Fort Hare). The Bill was redrafted and the sections referring to Fort Hare and the Medical School omitted. The revised Bill was placed before Parliament and referred to a select committee after the second reading. It will have to be reintroduced in the new Parliament, according to usage after an election, and has changed its title to *The Extension of University Education Bill*. The intentions of the Government concerning Fort Hare are now embodied in the Fort Hare Transfer Bill, which is also expected to be introduced again. The case of the Medical School is in abeyance.

The Separate University Education Bill incorporates three principles which are alien to the concept of university as derived from English tradition, so far generally followed in South Africa. A new type of institution in the shape of State University Colleges for Non-Europeans is to be created. In addition the Minister(s) concerned will be empowered to decide who shall be a university student at the existing universities and at the new university colleges. The first provision acknowledges that in establishing institutions of higher education for the economically weakest section of the population, the initiative cannot be left to private initiative alone. But it is anticipated that the measure of autonomy which an institution like Fort Hare has hitherto enjoyed will in future be curtailed. The second provision removes the administration of the admission policy from the hands of the senate and the council. This sets a precedent which is disliked and not only by Liberals. The third principle is to make each college serve the ethnic group of its area. Hitherto the state had refrained from exercising its sovereignity in three ways, in spite of the high degree of financial aid it renders to universities. All it did was to assure itself that the funds it provided were properly administered.

Concerning the administration of the new university colleges for Non-Europeans, the proposed legislation foresees appointment and transfer procedures which make virtual civil servants out of academic staff. The senates and councils are to consist of appointees of the Minister of Native Affairs (in the case of the colleges for Africans), and they will have limited representation in the corresponding bodies of the University of South Africa. This university will control academic standards (through syllabuses and examinations) as the Native Affairs Department will control the colleges in matters of administration and finance. The service conditions laid down in the Fort Hare Transfer Bill re-embody the restrictive measures valid for technical institutions.

Over and against these drawbacks it must be pointed out that the Bills recognize the need for the expansion of university education for Non-Europeans (two additional colleges are envisaged for Africans, one college for Coloureds, and one for Indians). It makes possible the use of special methods of training and more effective adaptations to the cultural level of the general run of African students. Further, the separate colleges will make possible a co-ordination of university education with the planned occupational differentiation for Africans (and Coloureds) which has so far been neglected and which is jeopardized in a *laissez-faire* society where economic power rests almost entirely in the hands of a white minority. Disregard of this principle in other undeveloped countries has led to the formation of a large 'academic proletariat'.

Academic opinion at the 'open' universities considers these advantages too high a price to pay for the loss of the 'four academic freedoms' of a university, viz. "to determine by itself who may teach, what may be taught, how it shall be taught, and who may be admitted to study".

Teaching Problems

The problems of teaching Africans (and other Non-Europeans) at university level are sometimes ignored for reasons of convenience. One university writes: "No information is available as to the alleged handicap under which Africans work and no observations have been made in this respect. No statistics are available as far as comparison between performance and attainments of European and Non-European students are concerned." In the case of the 'open' universities the moral satisfaction at doing the right thing by admitting Non-Europeans is valued so highly that the problem of pedagogic differentiation is considered negligible.

For the University of Natal the limited social heritage of Non-Europeans, as characterized by low educational standards of parents, poor home environment, unsatisfactory schooling, forms the justification for its Differential Plan. A marked difference in performance between students who have 'Western-educated' parents and those who have not, has been observed. Apparently Africans, who in this respect are handicapped most, do not do as well as other Non-Europeans, and Non-Europeans as a whole do not do as well as Europeans. There are, of course, individual cases who do better than the average European. But again there are as yet few of the higher-quality students among Non-Europeans.

One factor which depresses performance is age. At Durban many Africans are admitted on Conditional or Mature Age exemptions from the Matriculation Examination. (Of the 78 Africans, other than medical students, of whom 17 are post-graduate, 9 are under 21 years of age, 6 from 21 to 23 years, 16 from 24 to 26 years, 14 from 27 to 29 years, 8 from 30 to 32 years, 10 from 33 to 36 years, 8 from 37 to 40 years, and 7 over 40 years.) In the University of South Africa, of a total of 5,538 European students in 1957, 2,973 were over the age of 25 years, whereas as many as 850 out of a total of 1,085 Africans exceeded that age. However, in the UED class at Fort Hare, older students with experiences in classroom and the world at large usually perform better as teachers and make more valuable contributions to discussions than the younger students. Young Africans with full Matriculation Certificate—who are being supplied in increasing numbers by the expanding secondary school system—show a level of attainment which is little distinguished from that of other Non-Europeans.

An equally important factor is language. The medium of instruction at all institutions is not the mother tongue but English (and for a considerable number in the University of South Africa, even Afrikaans). Afrikaners, who only recently won the historic battle of their new language against both English and Dutch, approach this question from the point of view that any person worth his salt should show pride in his mother tongue. Africans, on the other hand, while not abandoning their own languages, feel that they are not developed enough in richness of vocabulary and conceptual structure to serve as medium at university level. They further apprehend that without a world language as medium they are in danger of losing contact with the intellectual movements of the modern age.

For these reasons, and not for any lack of innate ability, special arrangements are made at Natal to eliminate the effects of such handicaps. In English, special tutorials in comprehension and expression are conducted. While some Europeans take such tutorials as well, the need is greater for Non-Europeans. In addition, many Non-Europeans seem to take their first-year courses on a two-year basis.

In 'separate' institutions the possibility of comparison is absent. Nevertheless, as was noted, a preliminary year has been added to the medical course at Durban to provide the lacking background knowledge. At Fort Hare special tutorials in English are given and strenuous, if spasmodic, efforts are made, mainly by the Departments of English and History, to provide courses of public 'background' lectures. Undoubtedly much more individual attention is given to students at the 'separate' institutions than at the 'open' universities, although it is difficult to generalize. It is safe to say that there is a far greater need for individual help and a correspondingly greater degree of accessibility of staff members at these institutions. In this connexion one has the impression that the danger of 'pampering' the students is not always avoided, a danger the greater since the rules of the world of *apartheid* outside the college walls are often enforced with little personal consideration.

Discipline

The problem of discipline suffers from a lack of investigation. The 'open' universities claim that with them no particular problem exists, but small minorities are known to be docile. Natal reports that it has been free of trouble, thanks to the opportunity its differential policy affords for Non-Europeans to co-operate with Europeans. But protests against the separation of students have been made, if only on a small scale. The discipline of one of the 'separate' institutions has been the subject of a commission of inquiry. Its report drew attention to the personal factor: the teachers in an institution of this sort must be sympathetic without being soft; they must be able to listen patiently in situations where only a brief remark is needed with European students; they must also be able to avoid becoming the victims of 'eternal palavering'.

The commission singled out two general reasons for disciplinary difficulties. The past of the institution with the atmosphere and function of a missionary high school had not yet been overcome: regulations were too restrictive, daily devotions and compulsory attendance at Sunday services had weakened the influence of religious values. In addition, the isolation and self-containment of a separate college had a detrimental influence. Grievances become unduly magnified, frustrations cannot come out into the open as they do in universities where students of various races mix.

The commission can be criticized for not delving into the question whether 'anticipation of the future' did not play a much more decisive role in colouring the college tone than the past and present isolation. The attempts on the political plane to establish fronts of solidarity among the non-white peoples against the increasing complexity of white defences are carried over into the student life of a 'separate' institution more easily than elsewhere. A homogeneous student body is liable to be used or abused as a pawn in the political struggle, and to be charged by certain leaders and organizations with the task of promoting political demonstrations and actions. In a situation in which no other means of expressing political convictions and loyalties exists, students may come to feel it their duty to respond to such a charge. In such a situation legitimate disciplinary measures are often interpreted as part of a system of political oppression, and the refined values of the pedagogue are weighed in the coarse balance of political considerations.

The teacher in a 'separate' institution has indeed a privileged and responsible position. He has his ear on the ground and can sense the stirrings of a gigantic future. It is true the distrust which is cultivated by extremists, both black and white, makes disinterested relations and fruitful contacts between individuals of different race difficult. Genuine intellectual co-operation is made impossible by political partisanship. The ideal of testing conflicting philosophical and perhaps scientific opinions in the crucible of discussion and debate is seriously impaired in historical situations where new centres of power emerge with revolutionary force. And intellectual kindred are rent apart by political divergencies. In such times the ideal of stimulating the appreciation of differing viewpoints, which underlies the idea of a university, cannot thrive. For in such times the eternal verities grow dim and the glitter of slogans and pass-words outshines them. Yet it is in such a situation that the teacher must be on the alert. And he is in a position to learn all the time. For his assumptions are subjected to the fierce questioning of a rising *élite* which strives to expose the ideology of a ruling class.

The university teacher in the Africa of to-day must be able to show that his fundamental beliefs are not rationalizations shoring up a power position, but truths and values shareable by all.

O. F. RAUM.

REFERENCES

The author gratefully acknowledges information received from The Principal, University of Cape Town, The Registrar, University of South Africa, Pope Pius XII College, Roma, Basutoland, The Organizer Non-European Section, University of Natal, The Dean of the Faculty of Medicine, University of Natal, The Registrar, University of the Witwatersrand, Johannesburg.

Besides official calendars, handbooks, and pamphlets, the following published sources have been consulted:

A. van der Sandt Centlivers, " University Apartheid in the Union of South Africa", in *Science and Freedom*, No. 9 (Manchester, August 1957).

(Duminy) *Report of the Fort Hare Commission*, July 1955 (Lovedale Press, South Africa).

L. J. Du Plessis, "The Case in Favour of Apartheid ", in *Science and Freedom*, No. 10 (February 1958).

The Education League (South Africa), *Open Minds in Open Universities* (1956).

A. Kerr, " University Apartheid", in *The South African Outlook* (April 1957).

E. G. Malherbe, " Higher Education of Non-Europeans in South Africa", reprinted from *Optima* in *The South African Outlook* (July 1956); and " The University of Natal and the Separate University Legislation ", in *Science and Freedom*, No. 10 (February 1958).

Z. K. Matthews, " The University College of Fort Hare ", in *The South African Outlook* (April and May 1957).

National Union of South African Students, *The African in the Universities.*

M. F. Prestwich, " Some Reflections on University Autonomy, Academic Freedom and the Separate Universities Bill ", in *Theoria* (University of Natal Press, 1957).

Representatives of the Universities of Cape Town and Witwatersrand, *The Open Universities in South Africa* (Witwatersrand University Press, 1957).

* D. Stuart, " Fort Hare University College and the Separate University Education Bill ", in *Science and Freedom*, No. 9 (August 1957). A. Bulletin of the Committee of Science and Freedom.

* H. G. Stoker, " The Case for Apartheid ", in *Science and Freedom*, No. 9 (August 1957).

* The correct versions of these last two articles were published in a reprint of *Science and Freedom*, No. 9 (December 1957).

A Case Study in East African Higher Education—Makerere

UNLIKE some of the other university colleges in the British overseas territories, the foundations of Makerere stretch back to a past when its growth within a generation to the University College of East Africa would have been dismissed as an unrealistic vision. It was in fact started by the Uganda Government as a trade school for African students, the first of whom were admitted in 1922, but as a result of the de la Warr Commission on Higher Education in East Africa it became an institution for higher education for East Africa, which at that time could not offer any further education and little professional training to those African students who reached a School Certificate level of education.

At this stage the college offered a two-year higher studies course in arts or science followed by professional courses of varying length in education, agriculture, veterinary science, and medicine. The resulting academic and professional qualifications had only local recognition, and at that time there was no clearly defined policy for the future of the college, but it seems that those responsible for its administration believed that the status of its various diplomas would gradually grow until they became degrees in their own right with world-wide recognition. This belief, however, made no allowance for the rapid rise in the general educational level throughout East Africa nor for the impetus given by the 1939–45 war to the commercial, industrial, and general economic development of those territories and the consequent demand for fully qualified men and women in the government professional services as well as in commerce and industry, the need being particularly great in veterinary science and agriculture, in which fields the economic development of the territories must lie for at least the foreseeable future. Parallel with this rising need there arose a political demand from the African community for facilities for higher education to match the expansion at the other levels and which clearly could be met only in part by institutions in the United Kingdom and elsewhere overseas. This general situation in the colonial territories had to be faced in 1945 by the Asquith Commission on Higher Education in the Colonies, and it was met by their recommendation that overseas colleges moving along the slow road to university status should enter into a special relationship with London University under which students could be presented for the external degrees of that university.

Special Relationship with London University

Makerere entered into this special relationship in November 1949, and at the beginning of the next academic session, in March 1950, some students began to read for the general degrees of London University in arts or science. This was planned as a four-year course, its completion being subject to candidates being successful in the Intermediate Examination at the end of their second year. Makerere entered its first candidates for the Intermediate Examination in December 1951, and for their finals two years later. From 1957, however, London University decided to abolish its Intermediate Examination, but agreed that Makerere should continue with a special Preliminary Examination in its place. Only matriculated students were admitted to the degree courses and the conditions for matriculation were laid down by London University. These included a credit in English language in the Overseas School Certificate; a rigid insistence on this sometimes excluded students of considerable merit in other directions but without sufficient flexibility in the use of the English language to satisfy the examiners of the Cambridge University Examinations Syndicate. Makerere continued to admit such students to their own higher studies courses, which were continued for this purpose, and on the satisfactory completion of which students were admitted to one of the professional schools, which also continued with local recognition of their diploma awards. This concession was, however, withdrawn in 1956, and from then on all students had to satisfy the Matriculation requirements of London University.

With its experience in general degree work the college took its next step forward to honours degree courses. Under the London University regulations an honours recognition can be given to a sufficiently high standard in the general science degree, and in 1957 Makerere extended work at this level by the introduction of honours courses in English, history, and geography, and in July 1958 (the beginning of the academic year has been changed from March to July) mathematics and economics were added to the list. Further courses will follow.

Parallel with the advancement in the status of its academic schools the college has moved along the road towards a wider recognition of its professional schools. The Faculty of Education is continuing its two-year course for students admitted after the Preliminary Examination with a qualification recognized in East Africa as the equivalent of the British two-year training; it has also started a post-graduate Certificate of Education for those successfully completing the degree course. In agriculture the college introduced, in July 1958, a degree course under its special relationship with London University; negotiations are now going on about a similar course for veterinary science.

The medical school has followed a different pattern in that its objective has been to have its own diploma recognized by the General Medical Council for registration in Great Britain. In its early days the Makerere diploma in medicine was recognized only for certain scheduled appointments in the medical services of the East African territorial governments. In 1953, however, local legislation was introduced which affords the Makerere diplomat recognition for local registration and practice outside government service. Now the final step has been taken, and all students who qualified at Makerere in or after December 1957 are recognized for registration in Great Britain.

Here, perhaps, mention should be made of one feature of Makerere that is not found in any other colonial university college. It has a school of fine arts. It has various courses, including one for a full diploma for students who satisfy the full college requirements for entry; it also has a course at a lower level for students who cannot satisfy those requirements in full but show artistic merit in a special entry examination; it also has a follow-up course for art teachers. Its work in the artistic field has been outstanding, but the part it has to play in a university college has not yet been decided.

This progress has been remarkable, but its cost in buildings, equipment, and staff has been heavy. The territorial governments met part of the cost of the foundation of the college and the setting up of its endowment fund, but since the war it has depended for the greater part of its capital expenditure on substantial grants from the Colonial Development and Welfare Fund with a comparatively small but gratifying contribution from private sources. Its recurrent expenditure is met partly from the endowment income, but mostly from the territorial governments in the form of block and capitation grants and from fees paid by the students. These last, however, are beyond the means of most African students and represent another charge on public funds in the form of bursaries.

There, then, are the bare bones of the history of Makerere, the story of a hesitant and doubtful start followed by an inevitably dormant period from 1939 until 1945 which itself was followed by an astonishing development of the scope and quality of its academic and professional work during a time when the total of its students has risen from a few more than a hundred to four times that number. It is not surprising, therefore, that it has suffered from growing pains.

Academic Freedom and Social Responsibility

After its foundation Makerere had to face an early struggle for its academic freedom and an autonomy unfettered even by an indirect government control. The college had no cushion such as a University Grants Committee between itself and the Treasuries of the territories which were responsible for its financial support. All who ran could read in the government estimates that the college depended on public funds for its existence, and the right to call the tune has a special appeal to the taxpayer when he knows that he is paying the piper, nowhere more so than in the sensitive atmosphere of East African politics. To the traditionalist the college was an inevitable threat to the old order, which would have to face new complexities of political thought and emergent ideas moving towards a new social pattern. It was therefore not surprising that both the governments and the immigrant public were anxious to ensure that the college was not too disruptive an influence on the established order either through the academic content of its courses or in its disciplinary control of its students. This is, of course, a situation that is not without parallel in other parts of the world, and in fairness to the East African critics of Makerere it must be admitted that the new college was untried and without the solid traditions and reputation of the British universities, while the Inter-University Council, under whose aegis the college functioned, seemed a body remote from an emergent East Africa with its own peculiar social, political, and economic problems.

More realistic were the critics who believed that the Makerere authorities were too narrowly concerned with its own academic life and too little with the part it had to play in the East African pattern for the future. It was suggested, for example, that the college placed too much emphasis on the academic standards of admission to its professional schools and made no attempt to temper the wind to the shorn lamb who fell short of the examination requirements for entry to a course but could show other evidence of the ability and determination to complete it. The critics argued that through this adherence to rigid academic standards East Africa was being deprived of possible scientists who were desperately needed in the fields of agriculture and veterinary science. The improved and extended social services now being demanded throughout the territories depend on an expanding economy which must derive its motive force from better farming methods and the improved health of their people; this in turn depends on expert staff which only Makerere can to any large extent provide. It was a situation that led to friction, none of it serious but not without some acrimony on both sides. On the one hand there were those newly from the academic inviolability of British universities who saw the possibility of the dead hand of the territorial governments holding back the growth of the college or at the worst turning it into an instrument of government policy; on the other were those who believed that it should be a strong force in the advancement of the backward areas which it served and believed it was being obstructed by an academic intolerance from those who seemed uninterested in the real welfare of the people. Experience and the growth of a tolerant understanding of the views of others have smoothed out many of the early differences, and although criticism still occurs—and no one would wish it otherwise—the relationship between the college and the territorial governments is friendly and co-operative, a position that it has reached without surrendering any of its autonomy or academic freedom.

The Social Problem

Some of the criticism of Makerere was concerned, however, not so much with the academic side of its activities as with the moral quality of its students and their all too frequent lack of personal and professional integrity as soon as they met the temptations of the outside world. Against this some would argue that the surprising thing is not that too many Makerere students fail to maintain the moral standards expected of them, but that so many of them maintain high standards of conduct and personal integrity in both their employment and their private lives. The great majority of Makerere students are drawn from a primitive peasant environment often based on a very marginal subsistence; many of them have been to a tumbled-down village school of mud and wattle and thatch where they were crammed together, possibly on logs balanced on stones, scribbling on broken slates precariously balanced on their knees under the guidance of a harassed and not very efficient teacher trying to cope with anything up to a hundred pupils. Such conditions may not be frequent nowadays, but they make a picture familiar to those concerned with African education and were all too common in the early schooldays of many of the present Makerere students. From these primary schools the students moved on to the intermediate or middle schools where they started to learn English, and then on to the secondary level with the formal discipline of a boarding school, ending after eleven or twelve years' schooling with the Overseas School Certificate. It is a long and arduous journey to Makerere, achieved by fewer than one in a thousand of those who set off.

Against this progress through the schools there is likely to be the background of an illiterate home, possibly without a book, almost certainly without any means of artificial lighting, surrounded by a crowded active life, both human and animal, which makes any form of study or serious thought virtually impossible. It is also a life in which the social structure depends on a fixed pattern of behaviour with communal responsibility as its dominant feature. From this environment, reinforced by the formal discipline and communal pattern of life in a boarding school, the students entering Makerere suddenly find themselves facing the traditional freedom of a British university and a very strong personal responsibility both in college life and in their personal conduct. In addition to this they have to face the teaching methods of a university, with its lectures, private study, and the use of a library, all demanding a personal discipline for which neither their home nor their school has prepared them. It imposes on them an unexpected and severe emotional and intellectual strain to which some succumb but which surprisingly many overcome after a long and unnecessary struggle. Before degree work was started it seemed to those outside Makerere that the answer was that the first two years of the higher-studies course should follow the pattern of the sixth-form work not yet provided in the schools, and thus provide a gradual transition from formal classroom teaching to the techniques of university study; they also believed that first-year students should be subject to a formal discipline relaxed gradually as they moved through the college.

Those inside Makerere took the attitude that such a pattern of college life would demand from them duties which were not compatible with their professional dignity as members of a university staff, and that it would hold up the progress of the college towards university status; they also took the view that it was the responsibility of the governments concerned to see that their students were fitted for university life. While this last argument had much force it had one fundamental weakness—as long as Makerere provided only a two-year higher-studies course to follow the School Certificate the schools could not undertake sixth-form work without depriving the college of all its academic studies and so turning it into a centre for professional training only. This would not have helped it towards its university status.

Proposals on the Reorganization of Courses

With the admission of the college to its special relationship with London University and the beginning of degree work in 1950 the picture changed. Students were still admitted after the School Certificate and took a two-year course to the Intermediate (now Preliminary) Examination and a further two years to the General Degree finals. A four-year course at a university may seem unduly long, but it must be remembered that it starts at a time when a schoolboy in the United Kingdom is entering his sixth form and is taken in a language which is not the mother tongue of any of the students. That the time is too short has been recognized by the college by the extension to three years of the post-Preliminary course for the general degree in science and for the honours courses, but this is being off-set by some demand for the reduction of the Preliminary course to one year. It seems most unlikely that any student can be prepared for an honours degree course in one year after the School Certificate, and strengthens the already impressive arguments for transferring work at the Preliminary level to the school in the form of a two-year course for the Higher School Certificate. Such sixth-form work would prepare students intellectually and emotionally for university life and its methods of study and its challenge of personal responsibility; it would add another necessary year to the length of the course; it would reduce by a year the time spent at a university, thus reducing the cost and at the same time making available more places at the college for students working at the degree level.

In theory the territorial governments have agreed that this is the right policy, but their Directors of Education have hesitated before taking the decisive step of putting it into practice; this has been particularly true of Kenya, which has had considerable experience of Higher School Certificate work in its European and Asian secondary schools. The main difficulty is one of staff; there is a shortage of teachers everywhere and this is aggravated in the colonial territories by absences on overseas leave. Secondly, there is the ever-present problem of finance; a low teacher-pupil ratio means very high recurrent expenditure on staff, and a considerable outlay in capital expenditure will be needed to provide new buildings for both boarding and tuition. In spite of these difficulties both Uganda and Tanganyika plan to introduce Higher School Certificate work into selected African secondary schools in 1959, but Kenya continues to be hesitant and proposes to defer taking the same step until 1961 or possibly later.

This staggered introduction will help Makerere. If it were carried out simultaneously it would mean that no students would be admitted to the college for two years, with an obvious waste of accommodation and staff and a later gap in the ranks of the senior students. It will also mean that the Preliminary course will have to be continued for some time, and this will still provide for the admission of older students who have for some reason missed taking the Higher School Certificate in school. It will have to continue until candidates from all the territories have taken the Higher School Certificate at school, but after that there may still be a need for it as a one-year course, similar to that now operating in some universities in the United Kingdom, for students who possess the minimum qualifications for entry but are not sufficiently good to start immediately on degree work. In the meantime Makerere will continue to select degree students from its own Preliminary course and from the sixth forms in the schools; it will need care to avoid the suggestion that preference is being given to students already in the college, and it may be difficult to convince the people of Uganda and Tanganyika that Kenya is not obtaining some advantage by sending its students to Makerere instead of keeping them on at school for the Higher School Certificate—and indeed this may indeed prove to be the case in view of the quality of the Makerere staff and the high standard of accommodation and equipment, particularly for science. More growing pains are inevitable, and there will be problems of inter-territorial suspicion, but there is no doubt that in all respects the decision is wise, particularly in that Makerere will have more accommodation for students working at the degree level in both academic and professional subjects, and it is on these young men and women that East Africa will depend for its economic, cultural, and social advancement.

Racial Composition

Finally, something should be said about the racial composition of Makerere. When it was founded, the European and Asian immigrant communities looked to their mother countries for the further education of their children and it was the intention that Makerere should be able to offer similar facilities for African children. Since then the idea of a multi-racial society in East Africa has been born and nurtured into growth; Makerere has kept pace with this new pattern of thought and is in theory open to students of all races; in fact, only a handful of Asians have gone to the college and only one or two Europeans, usually for some special purpose. It is likely that many of the European and Asian communities will continue to educate their children overseas, but some believe that they are East African citizens and that all their needs, including the higher education of their children, must be found in East Africa. They are, however, always likely to have reservations about Makerere, because it is in an entirely African country where the people are suspicious of the immigrant communities of the other territories. Discussions have been started about a university college for Kenya, and with the example of the Royal Technical College in Nairobi it is likely to be more successful as a multi-racial institution than Makerere. Of course, some of the faculties now in existence at Makerere will not be duplicated in any new college that may be set up in Kenya or Tanganyika, and some courses will be available only at Makerere, but even so its multi-racial future must remain a question which only time can answer.

NORMAN LARBY.

CHAPTER SIX

The University of Tasmania and a Dismissed Professor

IN March, 1956, the governing body of the University of Tasmania, upon consideration of the report of two committees which had inquired into the conduct of its Professor of Philosophy, resolved that "compelling grounds exist for dismissing Professor X summarily". The University has since considered that X is no longer a professor of the University. In X's view, however, the purported dismissal was ineffective, and if effective was wrongful. He brought an action in the Supreme Court of Tasmania to establish that his view was legally correct. The court, however, ruled that the dismissal was proper, and that decision was upheld on appeal by the High Court of Australia.

Nevertheless, when in 1958 the University advertised for applicants for the Chair of Philosophy the majority of Australian university teachers of philosophy issued a statement in which they expressed the opinion that it would "be improper for any philosopher to apply for the vacant chair"; a similar statement was made by New Zealand philosophy teachers. In these statements reference is made to the intervention of the Presbyterian Church in Tasmania, supported by members of the Catholic and Methodist Churches. A report had been issued containing strong criticism of the circumstances of X's dismissal. There have also been suggestions, supported by newspaper editorials, for a review of the case by governmental machinery, such as a Royal Commission. The Federal Council of the Australian Universities Staff Association has also considered it expedient in the interests of the University of Tasmania itself that some inquiry be held. The University has, however, refused to institute any inquiry saying that it "has no legal or moral guide to the rights of the case other than the judgment of the Supreme Court of Tasmania and the High Court of Australia". The Prime Minister of Tasmania has also refused to take action, strongly criticizing those who ask for an inquiry. The case is one which has given rise to great intellectual and emotional differences: some commentators have likened it to the Dreyfus case; others consider that supporters of X suffer from emotional disturbances. The case will continue to receive widespread interest because of the importance of the issues involved.

The Broad Issues

In some perspectives, perhaps even in the light of ultimate justice, the most important matters are the feelings of the many parties involved. On the one side there are X and his family, and on the other there are not only a girl (Y) and her family, but also the University members, whose conduct has been attacked, and the University students and staff whose work of teaching and research is seriously disturbed by the continuance of the dispute. I am not insensitive to the latter aspects of the case, and in particular to the welfare of the University itself, but it is necessary in this note to isolate a few matters for consideration, and I limit myself to some general principles. This enables me to some extent to avoid judgments of fact. The 'facts' in the case are matters of great dispute and controversy, and to many present the most important issues. I will attempt to summarize only undisputed matters of fact, but I will most likely make assumptions which others may dispute. I shall, of course, have to refer to allegations: but in so doing it is, of course, the fact of the allegation having been made which I believe undisputed, not the content of the allegation: the allegations have so often been publicly made that they are themselves important 'facts'.

It is unfortunate, but not surprising in view of the subject-matter, that so many of the statements made about the case are of so partisan a character. A suggestion that the court was mistaken in finding that X had been guilty of sexual intercourse becomes according to the view of one side an allegation that the court was biassed—an attack on the administration of justice in Tasmania. On the other hand equally extravagant language is used by the other side in its criticism of supporters of X. Whether it is possible to be objective in this matter I do not know. If I am myself to attain any objectivity I must at once declare my own subjective belief that the members of the University of Tasmania did act unfairly to X, though it may be largely owing to ineptness, and that I have considerable doubt whether X was guilty of the sexual intercourse alleged.

This avowal points to a distinction between the various issues which should be made before I attempt a summary of the facts. On the one hand there is in issue what X did, and correlatively what are the principles of behaviour to be observed by members of a university in their capacity as teachers of students, and in their common task of learning and its advancement. On the other hand there is in issue what the University did, and correlatively what are the principles of behaviour to be observed by members of a university in their capacity as administrators of scholarship, in discharge of their common task of academic government. On the one hand there is, for example, the question of whether X had sexual intercourse with one of his students and the evaluation of such misconduct if it occurred: on the other hand there is, for example, the question of whether the University sought fairly to establish whether there had been sexual intercourse and the consideration of the consequences of any injustice if it occurred. Of course the problems of what X did and what the University did are interrelated: X's conduct is viewed in relation to the University and the University's conduct was concerned with X's actions. We can include X's conduct in a question embracing the University by asking whether it justified dismissal. But the distinction remains valid: there is nothing illogical in saying that a university has not observed proper standards of conduct in relation to a member who has not himself observed proper standards. The institutions for the protection of accused persons which are an essential part of freedom in the civilized world depend on this distinction. If it be thought, as a court of law has found, that X was guilty of misconduct, and at the same it be thought, as some responsible university teachers think, that the University also erred, then a difficult problem ensues. In the criminal law of England a finding of a defect in the trial of an accused man does not automatically result on appeal in the quashing of a verdict of guilty: there has to be a " substantial miscarriage of justice ". Nevertheless belief in the guilt of the accused is consistent with the existence of a substantial miscarriage of justice and does not prevent a verdict of guilty being upset. The procedure at a trial may amount to a substantial miscarriage of justice even though correct procedure would have resulted in a verdict of guilty. The innocent as well as the guilty, the community and the accused, are on trial in every case. A belief that the University acted improperly does not lead necessarily to the conclusion that there should be a judicial or other state inquiry to examine whether the decision of the court was correct in the question of sexual intercourse. On the view of the law taken by it the court was not concerned when dealing with the issue of sexual intercourse to consider the fairness of the university inquiry. The investigation by the court of the issue of sexual intercourse was independent of, and unaffected by, the previous university inquiry. It was however affected by the conduct of the University at the trial.

A Summary of the Facts

X was appointed in 1946 to a lectureship in philosophy at the University of Melbourne. While alone in Melbourne without his wife and children he had an 'affair': after his family arrived, he eventually lived in the same household with both women, and a child was born to his mistress. In 1952 he was appointed to the Chair of Philosophy in Tasmania.

Within two years of his arrival there X played the leading part in a movement for reform of the university administration. Thereafter a Royal Commission was appointed whose report generally supported X's views, in that it severely criticized the administration of the University. Notwithstanding the views of the Royal Commission the University was later to plead in litigation that X's open letter which he had published in the local press was an "agitational letter . . . composed for . . . promoting dissatisfaction in the University". The main points of the Royal Commission report were that there had not been adequate development of the University's physical amenities and educational policies, and that the government of the University did not provide for an adequate part to be played by academic personnel. The Report did not put an end to the discord within the University. There was delay in its implementation, and even the new university constitution subsequently approved by the Tasmanian Parliament, which was not to become fully effective for two years, was not approved by the Staff Association. The allegation has been made that, but for the part he played in connexion with administrative reform, X would not have been summarily dismissed, a charge which is, of course, consistent with the existence of proper grounds for dismissal. Nevertheless, it is hard to rebut the view that emotional resentment and personal dislikes influenced too much the actions of some of those charged with the handling of university affairs. Nor can it be said that calm reasonableness always predominated in the minds of those who found themselves differing from the university authorities.

The view that the welfare of the University of Tasmania required the dismissal of X was strengthened by a number of 'complaints' of various kinds alleging academic misconduct. These had been collected by the Vice-Chancellor and were submitted for consideration to an investigating committee in December 1955. They were later set out by the University in their defence to X's actions for wrongful dismissal. X maintained that the facts alleged were partly erroneous or distorted, and that in so far as they were true they did not constitute misconduct. In effect this is what the judge found; it needs to be emphasized that it was solely because of a finding of sexual intercourse with a student that the judge dismissed X's action for wrongful dismissal. So far as the procedure by the investigating committee was concerned, it has been stated that the personnel did not appear sufficiently impartial. X was not officially informed of their investigations: he was unofficially told that his dismissal was threatened and he took legal advice. His lawyer asked about the investigation, but was denied all information either as to the charges or as to the procedure to be followed. X then learned that the story of his Melbourne affair had been disclosed to the University, and that there were rumours of charges against him of improprieties with his women students. These were spontaneously denied by some students, and X's lawyer collected statements from students exculpating him. At that time no one had singled out Miss Y: she was one of the students who had written of X's integrity. Her father would not permit her to be interviewed by X's lawyer, save in his presence, and her statement of exculpation was subsequently to be an important document alleged to have been written at X's suggestion. The Vice-Chancellor summoned X to see him and two of the other members of the investigating committee, and he (X) was told that they were going to investigate the charges of academic misconduct to be presented by certain of his colleagues. X obtained leave to consult his lawyer, and on his advice, when he was refused copies of the complaints made against him, he withdrew from the inquiry. Though the University was to complain of X's withdrawal,[1] the committee, nevertheless, proceeded in his absence to examine the complaints and to find him guilty. The trial judge later was to hold that the inquiry was not in accordance with the University's constitution, and that X's withdrawal was not improper.

The university authorities received a letter from Miss Y's father reciting that she had told him that she had had sexual intercourse with Professor X. A meeting of the Council was called and the Vice-Chancellor invited X to see him in order to discuss unspecified complaints. X immediately got in touch with his lawyer who went to see the Vice-Chancellor. What happened at the interview is of considerable importance as affecting the character of the inquiry. X's account is that the lawyer discovered that the charges were those of sexual intercourse and that they were coupled with the Melbourne affair: he formed the impression that X was going to be dismissed, possibly summarily, and suggested resignation, which the Vice-Chancellor said he would welcome. Accordingly X tendered his resignation before the Council meeting conditional upon receiving six month's salary in lieu of notice.[2]

---

[1] In its letter of dismissal the University referred to "X's failure . . . to answer the allegations against him". In its pleading it alleged: "The Plaintiff wrongfully refused to submit to the authority of the Vice-Chancellor and withdrew from him without answering or explaining the complaints made before the Vice-Chancellor by [certain of his colleagues]."

The Judge's finding that this allegation was unjustified is considered later, but it should also be noted that before withdrawing X stated that he was always willing to meet the Vice-Chancellor and to give an explanation of matters in terms of the relationship between the Vice-Chancellor and himself. Moreover, he had already answered some complaints.

[2] The University included the resignation in its particulars of misconduct: "The Plaintiff when confronted with the said allegation sought to resign on terms of payment of six months' salary."

The Council, however, after listening to a statement of Miss Y's father, refused to accept the resignation. X was suspended from the University: he was instructed not to attend the University, not to carry out teaching duties, nor to interview any student on a university matter. The Council appointed a sub-committee of five of its members and two professors, one the Chairman of the Staff Association, to investigate the allegations. X was informed of Mr. Y's letter, and given six days' notice to attend before this Committee for the purpose of hearing and answering the allegations. He was told that if he did not appear the Committee might proceed with the inquiry without him. The judge was to describe this procedure of getting X's views as "an explanation asked for almost as an after-thought".

X's lawyer wrote asking to be allowed to represent him at the inquiry, but the University refused, saying the Council would investigate the complaint "in the same way as an ordinary employer would investigate a charge against an employee".

X and his advisers feared that the inquiry was going to decide merely between summary dismissal and giving six months' notice. Their fears were confirmed in their minds by the proceedings. X attended the inquiry alone. It was formal. Shorthand reporters took down evidence given against him, but X was told he could not have a copy of the transcript. At the outset X made a categorical denial of the allegations, but immediately the evidence against him was concluded he was asked to put questions to the witnesses, make a personal statement and submit himself for cross-examination. He asked for an adjournment to enable him to consider the evidence and consult with his lawyer, and he pointed out that he had been denied any opportunity of seeing students who might be witnesses. Eventually, the adjournment was granted on the ground of need to collect witnesses. On the resumption, X's counsel insisted on being heard. He stated that since the proceedings were irregular he had advised X not to take any further part in them.[3] He

---

The resignation was tendered "without prejudice". Where litigation is contemplated, or in progress, and an offer of a settlement is made "without prejudice" it may not be afterwards referred to in evidence. Technically, the words "without prejudice" in the tendered resignation were without legal effect since there was then no question of the compromise of a claim.

[3] At the trial the University alleged as misconduct:

"The Council of the University constituted a sub-committee to inquire into and investigate the allegations herein before set forth relating to [Y] and although the Plaintiff was present at the meetings of the said sub-committee and heard the statements taken in relation thereto and was repeatedly required to give an answer to the said complaints the Plaintiff refused to do so."

"The Plaintiff committed a breach of Statute 1A (3) of the Statutes made under the University Act, 1951, in that at the said inquiry when required by the Vice-called the proceedings an inquisition, and threatened actions against Miss Y's father for defamation, and against the University for wrongful dismissal. After these unco-operative remarks he left; there were further proceedings by the committee, who ultimately reported that X had been guilty of seduction.

The Judge found against the University on these issues.

The University maintains that the inquiry was seriously instituted to investigate the truth of Miss Y's allegations, and one of its purposes was to give X an opportunity of clearing himself. I find this difficult to reconcile with the evidence given by the Vice-Chancellor at the trial that X's resignation was rejected because the Council was stirred by the statement made by Miss Y. However, what is more important is the consideration arising from the maxim that justice should not only be done but appear to be done. I do not think sufficient was done, in the light of all that had happened, to assure X that he had a fair opportunity of disproving the charges: it is, to say the least, not surprising that X did not believe the proceedings were fair.

The Court Action

The Council of the University, on receiving the reports of the two committees, summarily dismissed X. He did not accept the dismissal, but brought an action in the Supreme Court of Tasmania, broadly speaking, for wrongful dismissal. At the trial, questions of law were argued as well as questions of fact. The questions of law, which will be discussed later, may be described as centring around the University's contention that its relation with X had been that of an ordinary employer with an ordinary employee; and the questions of fact, though they related to many allegations of misconduct brought by the University against X, were dominated by the issue of whether he had sexual intercourse with Miss Y. X has strongly denied this, not only when the charge was first made but even after the decisions of the trial and appeal courts. The charge made by the University at the trial court was that he had seduced Miss Y, that he had " abused his position as Professor of Philosophy to influence [her] to the said course of immorality ", but he denies not only this but also the charge implicit in the finding of the High Court of Australia that he had succumbed to the turbulent emotions of an attractive girl. I cannot in my position judge this issue of fact. After the trial court's decision and before that of the High Court, I wrote: " It is not unreasonable to say that the evidence may well have been unable to sustain a finding of adultery in

---

Chancellor to explain the aforesaid allegations of misconduct relating to the said [Y] he refused to do so."

a divorce court ". I am still of that opinion. It should be carefully noted what the judicial task was. X was the plaintiff, not the defendant at the time. The ultimate burden of proof was on him, but at the trial court the judge took the view that it was for the University to prove that there had been sexual intercourse. He found in favour of the University on this issue because he believed Miss Y and disbelieved X, but he appears to have been affected by the view that his decision had to be based on a balance of probabilities. This may be a lower standard than the proof beyond reasonable doubt required in a divorce court. So far as the High Court is concerned it should be noted that an appellate court does not usually reverse a finding of fact based on the hearing of witnesses unless it is quite unreasonable. The trial judge's finding was reasoned, and while it may be thought wrong, cannot be said to be wholly unreasonable. Nevertheless the judgment of the High Court accords ill with the story of seduction that appears in the University's pleadings. It finds that Miss Y was from the outset " eager to institute an intimate personal relationship with the appellant ".

Criticism has been made of the manner in which the University conducted the defence. It was more than vigorous: senior counsel for X described it as demonstrating " an almost fanatical desire to get rid of [X], and not merely to get rid of him but also to destroy him ". This is the language of an advocate concerned largely with the conduct of a rival advocate: but it is not easy to exonerate the University from all blame. The tactics of the university lawyer were to include in the defence many charges of misconduct, which enabled prejudicial statements to be made which were of dubious relevance to the charge of seduction. The " evidence " which has been most criticized is that from a psychiatrist about the subject matter of X's dreams.

General Principles

We may now attempt to abstract the general principles from the peculiarities of the case. The University of Tasmania now maintains that it treated Professor X as a member of a society of scholars responsible for academic policy, that the charges preferred against him dealt with his fitness to be regarded as a scholar entrusted with academic responsibilities, that they were fairly investigated, that he was given a reasonable opportunity to present his account of the matters under review, and that he was summarily dismissed because his lack of fitness was established. X contends that he defends not only himself but also general principles of good university government, because of the principles which were previously asserted by the University of Tasmania as justifying his dismissal. At the trial, he says, the contentions advanced by the University were these. A university stands to its professors in relation of master to servant; professors, like servants, can always be effectively dismissed by the mere decision of the university[4]: the justification which prevents a dismissal from being wrongful does not have to be established at the time of the dismissal; it is adequate for a master to dismiss on suspicion without any inquiry to confirm the suspicion, and to produce the justification after the dismissal. Moreover, says X, the conduct of the University's defence shows that the University considered that it could adopt tactics unrestrained by any element of personal fellowship with him. On the other hand the University can point to the statements which have been made by X's supporters suggesting that sexual intercourse between a professor and one of his students is a private affair of no concern to a university as such.

It is to be hoped that no one will now ever contend that the relationship between a university and its professors is that of master and servant. Such a view has been rejected for the United Kingdom by the University Grants Committee, which has stated that the university-teacher relation is not that of employer to employee but of a community of scholars. The contrary notion, apparently, was introduced into this case when the University wrote to X's lawyer saying that it would investigate Miss Y's complaint "in the same way as an ordinary employer would investigate a charge against an employee". From then on the University brought its relations with X under the legal category of master and servant. Yet it was not necessary for the University when it refused permission for X to be represented by counsel to have referred to an employer-employee relation; it would have been sufficient to have said that it was conducting a domestic inquiry. So, too, it was not necessary for X's lawyers in seeking to controvert the master-servant approach to have represented a professor as an 'independent contractor', one who contracts to perform particular services, such as teaching, for another to whom, apart from the specific subject-matter of the particular contract, he stands in a relation of independence. They were relying on a dichotomy which appears in one narrow branch of the law, but is inappropriate elsewhere. It was this notion of the professor as an independent contractor which led to the contention that sexual intercourse with a student was not good cause for terminating the appointment of a professor. This, however, is a doctrine that X has himself expressly repudiated.[5]

---

[4] It is essential to distinguish between the concepts of effective dismissal and rightful dismissal. (The latter concept is more usually indicated by the contradictory "wrongful dismissal".) A servant may be effectively dismissed by a master even though the dismissal is wrongful as, for example, where it is in breach of the terms of the contract between them, including an implied term empowering the master to dismiss for good cause. Rightful dismissal is always effective, but effective dismissal is not always rightful. Where dismissal is not rightful the servant is entitled to monetary compensation. Every dismissal is effective, the only question is whether the master's actions constituted a dismissal in fact. But whether a dismissal is wrongful depends on the terms of the contract. In X's case there was a clause in his contract of appointment providing that "it will be terminable by either party giving six months' notice". Accordingly it was contended that the appointment could only be terminated by giving six months' notice, and that there was excluded the implication of a power of summary dismissal for good cause. This construction was rejected by the court, which held that the six months' notice need not be given where there was good cause for summary dismissal. Support for X's contention is to be found in a House of Lords case (McLelland v. Northern Ireland General Health Services Board). But the court's construction probably expressed the intention of the parties to that particular contract.

Once it is accepted that a professor is a member of the community, or fellowship, of scholars and teachers who form a university, certain consequences follow. A professor is not a 'servant' who may be arbitrarily expelled. He does not cease to be a professor until his membership is terminated by proper university action. The expulsion of a member calls for a duly conducted inquiry into the establishment of good cause. Such an inquiry may appropriately be carried out by a domestic tribunal; the practice and procedure of a court of law are not required. But the principles of natural justice should of course be observed. Adequate notice should be given to the professor of the charges brought against him, and adequate opportunity be given for him to deal with the charges. The representation of the accused professor by legal counsel is not essential, but it would not be improper, and the presence of a friendly adviser is most desirable. It is not essential that the personnel of the tribunal should consist of persons in no way connected with any earlier investigations, but those who appear biassed should be excluded. The hearing should be fair, and due consideration given to all that is said on both sides; the inquiry should neither be, nor appear to be, a cloak for a predetermined decision. Universities could usefully consider the drafting of a code for the conduct of university tribunals. Wider knowledge should be given to the excellent work already done in this respect by the American Association of University Professors.[6]

---

[5] It is not merely the seduction of a student by a professor which is inconsistent with the intellectual fellowship which constitutes a university: a professor who permits himself to be seduced may also be false to his membership of a university. I have suggested elsewhere that there may be exceptions to this general rule; a professor should not be dismissed because his wife becomes a student; nor his mistress. On the other hand, I cannot accept the view that a professor's misconduct with a student is only relevant to his university position when his work as a teacher is affected. The university expects that a professor's relations with a student will be academic, as do parents who encourage their children to go to a university.

Due cause for the expulsion of a professor consists in conduct basically inconsistent with the performance of his duties in the fellowship of a university, remembering always that a mechanical conformity is itself inconsistent with the basic obligation of a scholar to bring the judgment of his own mind to bear on the tasks of scholarship. Academic freedom is as much a responsibility as a privilege. Sexual intercourse with one of the professor's own students must usually be inconsistent with university life, for quite apart from the moral aspect of an abuse of trust, and a fellowship involves confidence, the mental relationship which should exist between teacher and student is contradicted by a bodily relationship founded on mere desire.

The above principles are concerned with expulsion for cause, but the question arises of termination of an appointment by compliance with a provision for notice, or because the appointment is for a limited time. How far does the work of scholarship make it desirable that scholars in a university should have permanent appointments, and that the terms of their appointments should contain no provision for arbitrary dismissal merely by giving notice? Here again the American Association of University Professors has made a relevant contribution in its statement on academic tenure,[7] although in the United Kingdom

---

[6] It is appropriate to set out the following paragraph from the statement of principles relating to Academic Tenure adopted by the AAUP:

"Termination for cause of a continuous appointment, or the dismissal for cause of a teacher previous to the expiration of a term appointment, should, if possible, be considered by both a faculty committee and the governing board of the institution. In all cases where the facts are in dispute, the accused teacher should be informed before the hearing in writing of the charges against him and should have the opportunity to be heard in his own defense by all bodies that pass judgement upon his case. He should be permitted to have with him an adviser of his own choosing who may act as counsel. There should be a full stenographic record of the hearing available to the parties concerned. In the hearing of charges of incompetence, the testimony should include that of teachers and other scholars, either from his own or from other institutions. Teachers on continuous appointment who are dismissed for reasons not involving moral turpitude should receive their salaries for at least a year from the date of notification of dismissal, whether or not they are continued in their duties at the institution."

[7] "(1) The precise terms and conditions of every appointment should be stated in writing and be in the possession of both institution and teacher before the appointment is consummated.

"(2) Beginning with appointment to the rank of full-time instructor or a higher rank, the probationary period should not exceed seven years, including within this period full-time service in all institutions of higher education; but subject to the proviso that when, after a term of probationary service of more the Association of University Teachers favours a much shorter period of probation. Many contracts with teachers, however, do contain clauses permitting a university to terminate appointments without cause after various periods of time. In this connexion it is interesting to consider one of the contentions advanced by X's counsel as to the interpretation of the clause in his appointment providing that " it will be terminable by either party giving six months' notice ". It was argued that the general understanding of universities is that professors are appointed for the period until the age of retirement, subject to earlier termination only for misconduct. Only clear words in a contract could alter this position; if there were any ambiguity it should be resolved in a manner consistent with the general understanding. Accordingly it was submitted that the clause providing for notice applied only where there was a termination of the appointment for misconduct. The court rejected this interpretation. But one day it may be considered appropriate to pass legislation more favourable to the rejected mode of interpretation.

The action brought by X against the University gives rise to the question of how far the findings of a university tribunal should be subject to review in a court of law. This is connected with the problem of the legal review of the findings of all tribunals, governmental as well as private. Should there be an appeal to a court of law, and should a court of law be permitted to investigate questions other than that whether a university observed the principles of natural justice? It can readily be seen that substantial reasons exist for the view that that kind of misconduct justifying dismissal is more appropriate for a university tribunal than for a court of law, and also for saying that the establishment of the facts about misconduct is likewise best left to the university. The law at present permits a professor to have both these issues investigated by a court of law. Ought the law to be altered? On the other hand the decision of the Tasmanian courts is consistent with the thesis that though expulsion was not based on a duly conducted inquiry it may yet be valid. Ought this legal position to be altered? Appropriate legal enactment could bring about a situation whereby if the courts held that a university inquiry had not been properly conducted it could

---

than three years in one or more institutions, a teacher is called to another institution, it may be agreed in writing that his new appointment is for a probationary period of not more than four years, even though thereby the person's total probationary period in the academic profession is extended beyond the normal maximum of seven years. Notice should be given at least one year prior to the expiration of the probationary period if the teacher is not to be continued in service after the expiration of that period.

" (3) During the probationary period a teacher should have the academic freedom that all other members of the faculty have."

close the case, holding that the expulsion was invalid: and if the court held that the inquiry had been properly conducted it could go on with the case, investigating for itself the matters already considered by the university tribunal.

It may appear strange to some readers that there could be so long a discussion of this case without more consideration of the proceedings and findings of the Royal Commission which investigated the affairs of the University of Tasmania. But this article has not entirely ignored the basic principle asserted by that Commission. A university is only true to its essential nature if proper regard be paid to the dominant rôle that should be played by professors and other teachers in the determination of academic policy. This doctrine has also been stated in this article when the view has been rejected that professors of a university are its servants or independent contractors. They are neither: they are the governors of a republic of learning.

J. L. MONTROSE.

SECTION V

RELATIONS BETWEEN INSTITUTIONS OF HIGHER LEARNING AND OTHER INSTITUTIONS

FOR this section we have selected a number of case studies to illustrate aspects of the relations which exist between institutions of higher learning and other social agencies. The latter can be sub-divided into (*a*) educational and (*b*) other types of socio-economic institutions. Our assumption is that what goes on in the institutions of higher learning is, at least in part, determined by, on the one hand, secondary or pre-higher schooling and on the other by social and economic factors. It is also the case, of course, that the universities and colleges are determinants of educational and social policy.

A highly selective educational pattern means that membership of leadership groups depends a great deal on educational opportunity at all levels. Even where secondary schooling no longer depends upon a parent's ability to pay, many studies have shown that with the present selection tests for the secondary schools the chances of pupils entering these schools is closely related to parental position both economic and social. This has meant that in Europe, and wherever her pattern of education has been copied, leadership has been perpetuated not by direct inheritance or wealth as previously, but indirectly through cultural advantage. As leadership groups have expanded to meet the professional demands of modern industry, commerce, and government, education has been used to gain entry to them. Thus education has acted both as an influence conserving social structures and at the same time expanding certain of them—particularly the clerical and professional groups within the middle class. Any reorganization of the institutions of higher learning is likely to affect the structure of society and in particular the character of the leadership groups. Already in many countries there has been a movement away from selection which reflects class origins.

The first article by Mr. Kålund-Jørgensen concentrates on two aspects of reform in Denmark; the revision of the examination requirements of the examination schools and the *gymnasia* and the reaction of the universities to it, and the reluctance of some people concerned with the teacher training college movement to come into closer relationship with the universities. Dr. Kiehn describes the rigid system which has for long obtained in the German states, whereby the universities and secondary schools have jealously guarded their standards of learning by controlling the route of access to the universities. The growth of new forms of institutions of higher learning, and the pressing need to use the full potential of ability in modern society have both, Dr. Kiehn explains, shown the need to experiment with alternative paths to work of university standard. Mr. Saiyidain and Mr. Dawood review the situation in India. There the main feature of the recommendations made by the Secondary Education Commission's *Report* is that it has been made "a comprehensive analysis of the aims, organization, methods, and the content of secondary education, of its relationship to primary, basic, and higher education, and of the inter-relationship of secondary schools of different types". The main struggle has been to release the secondary schools from the dominance of the university entrance examinations. The actual achievements arising from the change of name to the 'School Leaving Certificate' have been "more nominal than real". The authors describe attempts which have been made to give the secondary schools new purposes, with programmes based more on the needs and interests of children than previously and with the curriculum offering for them a greater number of choices. The removal of the examination as a standard of achievement implies, however, that new criteria can take its place. Under conditions of rapid expansion, however, the partial release of the schools from university domination has resulted in a disquieting lowering of standards. The solution of these problems depends both upon a more adequate supply of well-qualified teachers, a removal of the artificial barriers between college lecturers, secondary school teachers, and primary school teachers, and a reorganization of the secondary schools so that they become a complete unit in themselves with the abolition of the present intermediate colleges. In this analysis the authors make abundantly clear that the effective reform of any part of the system implies changes in other parts.

Mr. Henderson reviews the reorganization of New Zealand institutions of higher learning as a result of which the original university colleges have been raised to the status of full universities. Special note is made of the future role of the embryonic senior technical colleges and the research institutes which are financed and controlled by the government. Mr. Henderson goes on to describe the methods of gaining entry to the institutions of higher learning and analyses the ways in which they help to produce, through recruitment of graduates into government service and so on, a political-social power élite. There is evidence, he writes, " throughout the whole life of the community that the trained balance between the institutions of higher learning, particularly the universities, and the schools that prepare students for matriculation. Neither these schools nor the higher institutes can be blamed for any disadvantage that might be involved in the reform. None of them participated in the compromise that ended the discussion; nor did they hesitate to draw political and public attention to the fact that the prospective laws were defective on the point in question. But their arguments and eventually their protests were neglected. So, perhaps for the first time in Danish educational history, a reorganization of the higher school was carried through, not only without co-operative support from the institutions of higher learning but directly against their will, and against the demand of practically the whole academic world. In Parliament the Conservatives shared in the criticism and voted against the reform. In fact, the episode was another phase in the continuing battle about the school, and confronted by the working and farming classes, under purposeful leaders, the champions of academic and social conservatism were the losers.

What, then, was the point? The whole conflict must be considered in its proper perspective if it is to be understood. The acceptance of the 'People's School', i.e. the elementary, all-standard school for the masses, was an essential factor in the social development of the last hundred years. In the middle of the nineteenth century the first step forward in this line was reached, when responsibility for fundamental education was vested in the local communal councils, working through appointed education committees—the school boards. This measure was the work of the Liberal movement which came into power in 1848. Its educational programme, as implemented by one of the leading cultural politicians of the time, D. G. Monrad, through his Education Act of 1856, contained a main clause to the effect that the people, after the adoption of the principles of universal suffrage, should govern its own affairs, including fundamental education. The issue was that the man in the street showed a growing interest in the local school, and was concerned with its buildings, its equipment, its staffing with qualified teachers, etc., and the consequence was that it gradually developed from a school for the poor into a school for all, acknowledged by all classes of the community, a spiritual centre of the area. After less than half a century this status was made clear in the Act of 1899, carried by a Parliament in which the broad democratic party, the Left, had the majority. The compulsory education age was then raised to 14 without exemptions.

The next and still more significant step forward to increased acknowledgment was taken in the early twentieth century (more or less in line with the contemporary Morant–Balfour reform of 1902), when the idea of adapting the school system to the aptitudes and needs of the children, as advocated by John Dewey, had gained a foothold in West European educational thought. It was then recognized that the elementary school in Denmark had reached such a standard that it could serve as the common basis for a variety of post-primary and secondary streams suitable to children and youngsters of different abilities and interests. In 1903 the leading democratic politician, a rural schoolmaster named I. C. Christensen, then Minister of Education, was able to carry through a Higher General Education Act which combined elementary and secondary education so as to form a unified system. The connecting link was an innovation, if not in European, then in Danish educational policy: namely the middle school course, which should be open for the intelligent and academically minded pupils aged from 11+ to 15+, and conclude with an examination under external control. This new four-standard unit was to be a statutory junior department of the complete secondary education, the senior department of which should be a three-year *Gymnasium* course (a Sixth Form). But perhaps the most significant measure of the Act was §18, which made the middle school course eligible for the elementary schools of urban type as a parallel stream to its top standards, and entitled the municipal authorities to pay the expenses out of the rates and even to share in the state grants earmarked for secondary education. The primary standards of the elementary school had thus been acknowledged as part of the secondary system—serving as the first steps of the ladder that led to the gates of the university.

The laws of 1958 are another stage in this development. It is now the senior standards of the elementary school that claim to be acknowledged, Standards 6 and 7. Catering for all pupils aged 13 and 14, they will—either streamed or unstreamed—have a double function, serving both as the conclusion of the elementary education and as the beginning of the secondary. The former middle school course will be replaced by the following pattern: the elementary top (Standards 6 and 7), plus two years in a new *Real* course (*Real* I and II), plus three years in the *Gymnasium*. In the opinion of the academic world such a broken-up course will mean a devaluation of the whole of secondary education when compared with the former given in fully academic junior and senior departments. The crucial point is the elementary top, with its dual purpose. Will the course given in the elementary Standards 6 and 7 be appropriate as an initial secondary education? If not, secondary education will certainly be devalued, which, for various reasons, would be alarming.

Monopoly Endangered

Apart from the fact that the technical development has made it abundantly clear how urgently necessary it is to further the training and education of a qualified élite, a noticeable devaluation of higher education would imply a considerable risk for the schools in charge of that education. Those schools have for ages enjoyed the privilege of being allowed to select that section of youth to whom university studies can be entrusted. The university itself has no influence on the choice (unless a university professor occasionally should be appointed as one of the assessors of the examination at an individual school, which might happen). Any boy or girl who at the age of 18–19, or later, has passed the School Leaving Examination is entitled to matriculate and to be exempted from further admittance tests. It is, however, an indispensable pre-requisite that the selection, the segregation made by the school, be reliable, i.e. that the School Certificate issued stands for adequate qualifications for academic studies. If not, the institutions of higher learning will have to consider whether they will have to arrange their own selection tests, or, in other words, deprive the schools of their selection powers. Such a measure would, however, to a considerable degree lower the position of the schools. So the acknowledgment of the elementary Standards 6 and 7 as an initial step in secondary education was opposed, on prestige grounds, by the *Gymnasia*.

It has already been mentioned that in this dilemma the secondary schools were bound to get the worst of it—whether justifiably or not. Here the tradition must be traced, for it is important. The medieval cathedral schools, which may well be considered the mother-institutions of modern secondary *Gymnasium* schools, were first of all concerned with the education and training of prospective clergymen, and eventually also of future state officials. They had, therefore, their own lecturers of theology and philosophy so as to combine preparatory and advanced studies. They were generally schools and academies under the same roof. It did not make much difference that, in 1479, a university was founded in Copenhagen. Only those who aimed at the higher posts, secular or spiritual, were supposed to continue their studies at this new institute or at universities abroad. The Lutheran Reformation, adopted in 1536, did not cause any great change in this state of things, apart from a temporary, although considerable, decline in the standards and of the schools and in the number of students. On the whole, the cathedral schools survived and were maintained chiefly by state donations, so that in time they developed into regular state schools. In addition, on the strength of a Royal decree of 1537 (the Church Ordinance), smaller 'Latin schools' were to be erected in all towns where no cathedral existed. Although the University of Copenhagen was restored (1537) and organized as a fully academic seat of learning, of Central European type, with faculties of (Lutheran) theology, law, medicine, and philosophy, the cathedral schools still acted both as schools and academies, maintaining their lectureships of theology and philosophy so as to recruit the ordinary clergy and other officials. Only after a generation had elapsed, after 1560, was a change attempted. By Royal decree studies at the university, at home or abroad, were made a condition for obtaining holy orders in the national Church or employment in the national administration and diplomacy.

Gradually the schools were now concerned chiefly with such preparation, but still they covered an important part of purely academic education and training. They were channels towards higher learning. A *testimonium scholasticum* from any cathedral school, as well as from some new foundations made in the latter part of the sixteenth century of similar standard (private or Royal), and from the more successful town Latin school, opened the door to academic studies. Even private tutors who had graduated were entitled to issue such testimonials.

This segregation could, however, not survive in the following period. Orthodoxy, uniformity, sense of order and control were the ideals of the seventeenth century, with all of which a variety of testimonials did not harmonize. A regulation of the work of the schools was attempted in 1604, but, not satisfied with the results, the Government issued a decree on March 27th, 1629, to the effect that nobody could be admitted to the university unless he at least was *congruus in lingua Latina* and understood *faciliores textus graecos Novi Testamenti*. Still the authorities were not satisfied. It was felt—and said in a decree in the following year—that the youth who proceed from the schools to the university were so "gross and rude" (*befindis så groffve*) that they could not be accepted. Therefore an admittance examination was to be held by the university itself, an *examen artium*. The effectiveness of this new segregation, first conducted in 1631, can be seen from the fact that out of twenty-three applicants in that year only eleven passed, whereas twelve were rejected "*ob extremam ruditatem in lingua Latina*", proficiency in this language being the decisive criterion.

So the university had taken the process of selection into its own hands. Later in the century, in 1675, a further test was introduced to secure sufficient maturity before graduation. It was the so-called 'second' examination, an *examen philosophicum*, also conducted by the university itself. These measures emphasized, however, the exclusive and academic character of the schools. These were now unmistakably placed in real apprenticeship-relation to the higher institutions. Their curricula and syllabuses were controlled by university professors, who also wrote their textbooks, and their daily work was prescribed in all details. Even regulations for the qualification of their teachers were given. *Latin* schools became the common name. It distinguished them from the schools not connected with the university, and therefore called *Danish* schools (or in some cases German). The names indicated the language in which the instruction was to be conducted. As the strict requirements in regard to Latin gradually proved to be unrealizable in a multitude of town schools, erected in accordance with the decree of 1537, two-thirds of them were sorted out, which was contemplated in 1682 and effected in 1739, wherewith about forty out of sixty original Latin schools were changed into Danish schools. The rest, about twenty, retained their position and have since been the central pillar of the secondary school system, acting technically as preparatory schools to the university, which was their main task until the middle of the nineteenth century.

Statutory provision for this university apprenticeship was repeated in the early nineteenth century. In 1805 the surviving Latin schools, now named 'Learned schools', were released from the original sponsorship and supervision of the Church and placed under a new authority, the "Directorate of the University and Learned Schools", a Government Board that was responsible only to the absolute King. The man behind this reform was the Duke of Agustenborg, Frederik Christian, who became president of the Board. He was also chiefly responsible for the Royal decree of November 7th, 1809, that reorganized the schools and the statement of aims, which said that the common objective of all the learned schools should be to give the youth such a development of their abilities and aptitudes and such a store of knowledge that they would be able to *continue* and *accomplish* their academic studies at the university. This decree, the content of which was a compromise between the neo-humanistic and the philanthropic-realistic currents of the time, led to the development of an academic élite which in the early nineteenth century dominated spiritual life (literature, philosophy, history, educational thought, etc.), national feeling, and eventually politics. When in 1820 the young academic undergraduates founded their own association, one of their enthusiastic poets interpreted their attitude in a poem in which the following lines occurred:

> Herrer vi ere i åndernes rige,
> Vi er den stamme, som evigt skal stå!

or in a literal translation:

> Masters we are in the spiritual realm,
> We are the stock that shall live for ever.

The seeds of class pride and self-esteem depicted in this and similar poetry were evidently laid in the junior department of the academic guild, the learned schools of 1809.

First Steps towards Liberation

New aspects were, however, adopted in several circles after the second decade of the academic 'golden age'. The repercussions of the French Revolution of July 1830 were now felt, and realistic currents began to penetrate political and spiritual life, including educational thought. Among the many witnesses of this, two were particularly important for educational developments, the one given by an outstanding representative of commercial and industrial interests, the other rendered by a university man from the very inner circle.

The former was T. Algreen-Ussing, a Copenhagen lawyer, who was elected a member of the newly established advisory Estates of the Realm. Speaking during the opening session of the assembly in Roskilde in 1835, he emphasized the urgent need of a "school for life", i.e., in his interpretation, a school that provided useful knowledge such as mathematics, geography, natural science, on the whole a realistic as opposed to the humanistic and classical education given in the higher schools of the day. "Poor youth," he said pathetically, "you are thirsting for learning, but you are living in a desert where no wells of knowledge can quench your burning tongue. . . . Poor parents, you are willing to make any sacrifice in order to furnish your children with useful knowledge. . . . Poor Denmark, you might have a strong, clever, well-informed middle class, adequately educated for life, but you do not have it, for the school is lacking!"

There is no doubt that wide circles of middle class tradespeople shared in this reaction against the neo-humanistic academical orientation of higher education. More effective, however, was the spokesman for the university, already referred to, the professor of classical languages, J. N. Madvig. Although rather young, born in 1804, his attitude was decisive. Reviewing a series of contributions produced shortly before by several educationists and scientists, he analysed the character and objectives of the learned schools in some very voluminous articles in a leading literary monthly, *Maanedsskrift*, of which he was one of the editors (1829–39), and came to the conclusion that his own subjects, the classical languages, had to be somewhat reduced in importance. Of course, he would not eliminate the ancient culture from the curriculum of the learned schools, not because this culture was better than any other, but on the ground that it was the foundation of our own. It was however reasonable, he maintained, that it be to some extent replaced by modern languages, natural science and other 'realistic' topics. His words counted, and were so meaningful that the situation of to-day cannot be fully understood without reference to the change in educational thought which they caused.

In the following decade, the 'forties, when the Liberal movement (from 1842 referred to as the National-Liberal party) obtained increased influence and ultimately came to power as the dominating element in the Cabinet (1848) and the subsequent Parliament (from 1849), Madvig, himself a Liberal, was placed in a key position and charged with the task of reforming higher education according to his ideas and to the realistic criticism.

The change from an absolute to a constitutional kingdom (according to Royal proclamation of March 21st, 1848, and the adoption of a Parliament on June 5th, 1849), involved the necessity of an adjustment in the educational system as a whole and in secondary education in particular. The first step was the dissolution of the Directorate of the University and the learned schools (March 28th, 1848), which was a consequence of the general abolition of the Government departments (*Collegierne*) and their replacement by 'Ministries'. It meant that the schools were liberated from the control and administration of the university. They now came under the Ministry of Education, and a special State Adviser (*undervisningsinspektør*) was appointed to supervise and control their work. Madvig was, of course, appointed to that post, which he held along with his professorate until he retired from both in 1874. Only in the period November 1848–December 1851 was he left out, on the ground that he served as Minister of Education.

The pattern he laid was of far-reaching significance, particularly for the relation of the higher schools to the university. A classical scholar, he took it upon himself to release the former from the traditional tutelage of the latter, compelled by his own convictions and the liberal opinions he shared. The move making it possible for higher schools to give prospective tradespeople a so-called *Real* education (that is, not exactly a technical, commercial, or vocational training, but knowledge of subjects that might be useful in practical life) had been followed by petitions from the Estates of Realm, and the response from the Government had been favourable. Already in 1837 a *Real* course had been provided at the learned school attached to the old foundation in *Sorø*, the Academy, and in the following year (September 17th, 1838) a royal decree instituted a General Certificate Examination, which was to be held at the university alongside the *examen artium* but at a lower level, aiming at a preparation for studies at the Technical University (the *Polytekniske Laereanstalt*, erected in 1829), and for the courses in pharmacy, forestry, veterinary medicine, dentistry, etc. Finally, in 1839 a complete higher *Real* school was erected in the provincial town of Århus. It was a sincere attempt to build up a secondary education on more realistic foundations without the support of classical languages and literature, an equalizing of the preparation for academic studies and for careers in trade, and so a precursor of the technical training discussed to-day. The new Århus school (*videnskabelige realskole*) had eight classes covering the age-range of 10 to 18. A few others followed. As the curriculum, however, proved to be both too difficult and too extensive for the pupils concerned and for the education they required, it had already been thought, even before Madvig's appointment, that the course might be limited to five years, so that the pupils could leave at the age of 15 or 16 eventually, after having passed the general examination mentioned above.

Another project had also come into the picture. N. F. S. Grundtvig, the well-known thinker, poet, and clergyman who later on through his writings inspired Christen Kold, his most ardent disciple, to start the Folk high school movement (1851), had also been impressed by the debate in the Estates on the educational problem, and as his philosophy was on the whole opposed to the classical-academic education, which in his opinion was a 'black' school, or a school for 'dead' learning such as grammar, it was easy for him to join the movement for developing *Real* education at the cost of classical.

It is generally accepted that Grundtvig, during his visits to England (1829–31), pursuing his studies of Anglo-Saxon sources in the British Museum, was so deeply impressed by college life in Oxford and Cambridge that the idea of a residential Folk high school ripened in his mind. Later investigations have, however, proved that this is only half the truth. The foundation of the University of London at about this date was apparently more significant and gave him a stronger impetus. He seems to have studied the original projects of 1826–7 for the new British university before leaving Denmark, and he understood that the nature and objects as stated in the outlines would make it distinct from the old Universities of Oxford and Cambridge in significant matters, namely as a realistic seat of learning as opposed to the humanistic ones goes back to the Middle Ages. And it would be more popular since the costs were lower and students could be admitted equipped with ordinary, non-academic knowledge, and even be allowed to attend lectures without any obligation to go in for any examination or degree. These facts drew his attention to the old Danish foundation at Sorø (some 75 km. from Copenhagen), which since the mid-seventeenth century had acted as a sort of independent university and had recently been restored (1827). Was it possible to develop this institution on lines similar to those of London? In a letter (unprinted, but referred to by Helge Toldberg in his report on his research of, among others, Sir Frederick

Madden's diaries at the Bodleian Library) Grundtvig draws a parallel between the two institutions, and the idea began to grow in his mind that the Sorø foundation could be utilized to establish an academy for citizenship, a "High school for the people's life" (*Folkelivet*) as a contrast to Copenhagen University, with its classical bias.

Similar theories had been advanced earlier. Henrik Steffens, an outstanding philosopher and scientist, had on the request of King Christian VIII, worked out a plan for reorganizing the old academy as a 'practical university' for which the ordinary town schools and the technical schools should prepare students, whereas the prominent scientist, H. C. Ørsted (founder of the Technical University in 1829) suggested that the academy should be abolished and its donations transferred to his institute. Most powerful now were, however, Grundtvig's contributions to the debate. They consisted of his famous Folk high school writings in the 'thirties and the 'forties. They were called ravings by the academic quarter. If they had been successful they would admittedly have been more dangerous than any other attacks made on the academic prerogatives regarding the control of secondary education, and the danger became all the greater because Grundtvig obtained the support of the King and was invited to co-operate with him. It is easy to point out how different were the opinions of the two on fundamental points, the King emphasizing the realistic bias whereas Gruntvig stressed the historical and national elements. Both yielded, however, so that they reached a common plan, which the university—reluctantly—had to work out in detail, and which obtained Royal assent on December 31st, 1847. On the basis of the King's orders of that date, the academy was then reorganized as a free institute of higher learning, a *Real* high school that should be organized with two departments, the one inviting students without academic schooling to a two-year course in Danish language and literature and Old Norse as common subjects, and in special studies of subjects such as history, geography, statistics, economics and constitutional knowledge, modern languages or science, the other department giving instruction in realistic subjects with a view to bringing the students up to the level of the *examen artium*, without classical but with modern languages, concluding with an examination. Further instruction in agriculture and forestry was planned.

Whether this project for founding an institute of higher learning on the basis of non-academic pre-requisites would have been crowned with success if an event had not occurred that meant a catastrophe to its advocates cannot be decided. Three weeks after signing the orders for the new foundation the King died (January 20th, 1848). His son and successor gave up absolutism, and the Minister of Education in the new Cabinet, D. G. Monrad, immediately suspended the *Real* high school project. When later in the year Madvig had become Minister, Grundtvig made a request in the constituent assembly, but was met with the explanatory statement that the project of the late King had been a misunderstanding. In this strife with academic circles, conducted at the summit-level, the advocates of the intended popular and realistic higher institute of learning had lost. The reason why the London parallel succeeded was, perhaps, that Grundtvig had been too optimistic in his comparison. Evidence shows, at any rate, that the access to that new British university was not as easy as Grundtvig had thought. The students had to be well-acquainted with Latin grammar and be able to read an easy author in prose and verse, such as Caesar, Vergil, etc., as well as having a fair knowledge of Greek grammar and be able to construe Xenophon's *Anabasis*, or an author equally easy; further, they should be well acquainted with arithmetic and able to read an easy French prose author (cf. Statement of 1827).

It was now up to Madvig to consolidate the victory in such a way that proper consideration was paid to the liberating and realistic trends of the day. He did so through a Royal decree of May 6th, 1850, followed by a Ministerial order of the 13th of the same month, both fundamental for the status of the higher schools until the twentieth century. Already in the opening clause it was made clear that a new epoch was initiated. The learned schools should have the aim of providing a true and thorough (*sand* and *grundig*) general education of their pupils, and at the same time furnish them with such knowledge and mental development that they would be prepared for academic scholarship and the study of the subjects for which they might feel a vocation.

For the first time the terms 'general education' and 'mental development' had been included in the statement of aims of the schools attached to the university. They were no longer referred to as merely preparatory; they now had their own aims, in the pursuit of which it was hoped that they implicitly would provide an appropriate background with which university studies might be successfully pursued. The liberation of the administration had been followed by an educational freedom of potential significance. Another measure further emphasized this independence: the *examen artium* was removed from the university and vested in the schools themselves under the supervision and organization of their own adviser (*undervisningsinspektør*), who had to appoint assessors (*censors*) to assist individual teachers in marking and judging the pupils' qualifications. It meant that the university had been deprived of control and that the selection of undergraduates was entrusted to the schools.

It followed that the learned schools, after the loosening of their ties with the university, were ranged in line with the other schools, the

The Act was passed in 1871, chiefly in accordance with his views. A division of the last two standards was agreed, and the reduction to a four-year course was avoided. But as to the first two classes the House took him at his word. The higher schools were shortened to a six-year course, beginning at 12 and concluding at 18. This did not mean that the corresponding classes in the elementary school had been acknowledged. They were replaced by private junior schools, generally conducted by the staff of the learned school.

But now it was evident that a consolidation of higher education was only possible if it formed an organic whole with the lower schools. A series of Bills to that end were submitted by conservative Ministers of Education in the last decades of the century. They were, however, all turned down by the Left, who, from 1872, had the majority in the House. Their maxim was: the elementary school up to 14 as the common basis of all higher education. They therefore would concentrate on the improvement of the basic education for the 7–14 age group, and in 1899 they reached their goal through an elementary education Act which became the starting-point for further progress.

Perhaps the most decisive step towards the next reform was taken by the university itself. A significant speech was made in 1898 by Professor M. C. Gertz, Madvig's successor and an outstanding classical scholar. His suggestions are generally referred to as having facilitated a unification of higher and lower education. He reviewed the whole development of higher education since the Reformation in 1537, and explained why the classical languages had been the dominant subjects. He asked whether it was possible to let Latin and Greek retain their position, and answered—No. They had to be reduced if higher education was to remain unified. In the first place, Greek had to be eliminated. Latin, as bearer of the culture through centuries must be retained, but to a more limited extent. And it had to be considered from a utilitarian point of view—as a means but not a goal in itself. Too long, he contended, had the higher schools been considered preparatory to the university. But the schools must first of all deal with what is indispensable for the understanding of, and participation in, the life of to-day, whereas 'luxury subjects' had to be eliminated or placed among those of secondary importance. This did not mean that the ancient culture was worthless. On the contrary—but knowledge of it could be obtained through translations. The command of the original languages was so difficult that it would be a hindrance to the acquisition of more useful knowledge such as modern languages and other realistic subjects.

This proclamation had the deepest influence on educational thought. Released from the obligation of providing a thorough grammatical knowledge of the classical languages except in a specialist-group, the higher schools could now invite the lower schools to co-operate, and the way was prepared for a reform, adopted in 1903, under the name: Act for Higher General Education (*højere almenskole*).

Already the change of name from learned schools to higher general schools is noteworthy, and the unification with the elementary schools is distinctly indicated in the opening clause, where it is said that higher education must be given as a continuation of the instruction given in the communal school (the *folkeskole*) up to the age of 11 or 12. About the affiliation to the university it is only said that the higher general education, *ipso facto*, provides a background for further studies. The effect was that an increasing number of pupils availed themselves of the ladder now created from the primary classes (7 to 11 or 12) through the four-year middle school course and the subsequent three-year *Gymnasium* course with specialist studies either in classical or modern languages or in mathematics and science to the gates of the university. By passing the final examination (*examen artium*), conducted by the schools under a joint internal and external control, they obtained a certificate that entitled them to enrol as academic students, i.e. academic citizens, according to § 11 of the Act. The holders of this certificate rose tenfold in numbers in the following generation, and although a considerable percentage did not continue their studies and only, or chiefly, completed their schooling in order to obtain the higher education that even the university had agreed to be the main purpose, a great number of sons and daughters of the farming and working classes were now drawn to study at the university and other higher institutions who previously had never thought of, nor had had the chance of availing themselves of this opportunity.

In the reform of 1958 the term 'higher' is not used, neither in the Bill, submitted on November 21st, 1957, nor in the Act, passed on May 30th, 1958. In the title it is said only that it is an Act about *Gymnasium* schools, and in the statement of aims it is said that a *continued* general education shall be given in *continuation* of the top class of the communal school (*folkeskolen*).

There will still be a ladder from the primary course (covering the ages 7 to 12) through the so-called *main* course (i.e. Standards 6 and 7 of the now restored all-age elementary school, age 12 to 14), and the first and second standards of the reorganized three-year *Real* course (age 14 to 16), from which the pupils are to be removed *either* into *Real* III (16 to 17) and finish with the lower certificate *or* into the three-year *Gymnasium* course (16 to 19), which concludes with the higher certificate examination (*studentereksamen*) that conditions university entrance. The substituting of the elementary main course plus two standards in the *Real* course for the former four-year unbroken middle school course implies that in future not only the primary classes but the whole elementary school as an entity up to the age of 14 should be acknowledged as the basis of the continued general education. So the idea of unification has been realized.

Here, however, the university people interfered, a step that was as extraordinary as it was sensational. During the second reading of the Bill, in May 1958, the Faculties of Philosophy and Art submitted a memorandum in which the head and the members unanimously maintained that the altered pattern would devalue pre-university education to such a degree that it would have to be considered whether the holders of the higher school certificate should be accepted in future. Any abbreviation of the academic school course would be risky and likely to have consequences of the most serious character. Neither the elementary main course nor the two-year *Real* course could be accepted as an adequate preparation for the subsequent *Gymnasium* course and matriculation, particularly not the first one which, like the elementary school as a whole, was not subject to any external control. It followed then that university studies for a degree either would have to be prolonged or conditioned by an admittance test from which no holders of the school certificate could be exempted.

An even more authoritative proclamation was made by the supreme governing body of the University (*Konsistorium*) of Copenhagen, on behalf of which the Vice-Chancellor (*Pro-rektor*) forwarded the faculty memorandum to Parliament with a unanimously agreed comment, referring to the fact that modern requirements as to the qualifications of persons occupying leading positions were continually increasing, and that, on the other hand, a claim reasonable in itself for limiting the period of study for a degree was repeatedly made. The university felt an obligation to try to satisfy these demands, but it was an indispensable pre-requisite that the students prior to matriculation be given an education not inferior to that hitherto provided, neither with regard to amount of knowledge or in degree of maturity. The governing body, therefore, could not avoid looking on the Bill submitted with great anxiety. They had reason to fear that a shortened course of proper academic standard would be an obstacle to the acquisition of the profound knowledge and advanced mental development required. Therefore, although it ought not to be so, it might be inevitable for the university to institute a supplementary and selective preparation for holders of the school certificate before they could be admitted to proper university studies.

Finally, to complete the picture, the younger university at Århus, inaugurated in 1928, joined her Alma Mater in Copenhagen in disputing the store of knowledge, the degree of maturity, and the appropriateness of the selection with regard to future students if the Bill was carried as proposed.

The monopoly of selecting university students was apparently immediately endangered, although it had been vested in the schools for more than a century. The public was informed by big headlines and detailed references and reports in the Press, and the professional associations of lecturers and head masters at the *Gymnasium* schools did not hesitate to disclaim their responsibility for the misery.

But what was the reaction of the politicians? The spokesman for the committee in charge of the Bill refused to consider the arguments of the universities, almost telling them to mind their own business. He referred to history, which proved that both the university and the Latin or learned schools had understood how to adapt themselves to the modern state of things. In line with him the other parties which supported the reform were equally impervious to the academic anxiety. Only the Conservative party, commanding about 30 out of 175 members, supported the scepticism and criticism which came from the academic quarter. Their spokesman was himself a university professor and a former Minister of Education, and he stated in a convincing way how risky it was to neglect the reasons advanced by the highly official and competent panels. The reputation of the country would be at stake.

Nevertheless the Bill was carried without any amendment on that point. In §8 of the Act it is said that the higher school certificate entitles the holder to matriculate at the universities and the other institutions of higher learning; for the latter, however, subject to special regulations.

Conclusions.

Has the problem been solved, then? Probably not. The relations between the schools and the university cannot have reached any fair balance, since no compromise was found between the two opposite parties. What will happen, then? Can the universities simply acquiesce in the decision of Parliament? Not very well, since their argumentation was so violent and their criticism so explicit. Their prestige would not be able to bear such a capitulation. If experience really does falsify their anxiety, the only alternative will be to admit it openly. If, on the other hand, it proves that their criticism has been justified, they will have to do something. Then the alternative will be to try to get the Act amended or to find another way out. No university or other learned institute will, of course, think of violating the law in which the school certificate is instituted as the only criterion for selecting students for the universities. An attempt to get the law amended will probably be equally impossible. It would be too hard a blow to the majority of the House if it had to admit its own mistake. Apparently there is only one way out of the dilemma. It is implicit in §2, where it is said that instruction in the *Gymnasium* shall be given partly on specialist lines. There are no limits set to this specialization. In that respect the new law is different from the former, according to which only three kinds of specialization were legal. Now the studies and training at the learned institutes to-day are highly differentiated. It seems incredible that one single general education could be arranged so as to cover all the variety of branches. The necessity of supplementary tests has long been felt. It might well be, however, that the new pattern of continued education (2+2+3 years) could be accepted as a background for a general, all-round education sufficient for matriculation, and it would be reasonable that the right to enrol was also extended to other advanced education, such as the *Real* schools certificate, the elementary teachers diploma, testimonials for proficiency in various technical subjects, etc. But admission to factual specialist studies for which a degree might be awarded should be conditioned by advanced passes in a specialized course in pre-university schools or colleges. The new regulations in the Act of 1958 open, at any rate, some perspectives to a solution that will re-establish the balance.

F. C. KÅLUND-JØRGENSEN.

CHAPTER TWO

Alternative Paths to the University—Germany

A PEDAGOGICAL problem under the rather inadequate name of the "Second Way of Education" (*Der zweite Bildungsweg*) is being discussed with great passion by politicians, teachers, and economists in the German Federal Republic. Although the nature of the problem has been variously interpreted, all seem to agree that something has got to be done in Germany to broaden the way to the university and higher institutions, until recently available exclusively through the *Reifezeugnis* (Leaving Certificate) obtained at a *Gymnasium*. Possibly the example of England and her technical colleges prompted the posing of this problem. In addition, a radical break with the previous German school tradition was accomplished in the Soviet Zone after the Second World War by the imposition of complete uniformity of pedagogical thought and school organization on the Soviet model. The German Federal Republic, in contrast to the centralization of the Hitler period and of Eastern Germany, has returned to the federalism of earlier times. It is thus not surprising that so fundamental a problem as the "Second way of education" has found in the several *Länder* different interpretations and a multiplicity of attempted solutions. Yet common to them all is the attempt to sidetrack the prevalent monopoly of the *Gymnasien* in awarding the right of entrance to universities and higher institutions.

After the defeat of 1945 a great number of young people of both sexes were thrown out of their original school life by the results of the war. Some of them of necessity took up the first available employment, hoping to continue their education later. Many of them have returned to secondary schools to work for the *Reifezeugnis*. What prevented those who, due to economic reasons, were not able or did not wish to do this?

The monopoly of German Gymnasien in the award of academic qualifications

It was after the defeat of Prussia by Napoleon during the reign of Friedrich Wilhelm III that the division of functions of secondary schools and universities, significant for Germany, was introduced. In 1808 the leaders of German neo-humanism and philosophical idealism such as Wilhelm von Humboldt, Fichte and Scheiermacher wanted a radical reform of German education. If later most of their ideas were in fact realized in Germany, the reform was unfortunately diverted from the original straightforward plan. The powers of state formalism and conservative economic reasons outweighed the original pedagogical ideas and produced narrow and perverted forms. W. von Humboldt's idealistic sharp division between the education of man and his vocational training, between 'general' and 'special' education, also embraced the *Volkschulen*, reformed by Pestalozzi. They, as well as the humanistic *Gymnasien*, were assigned the task of 'general education of man'. The responsible leaders of this ideal were the *Philologen*, the masters of the *Gymnasien* who were emancipated for the first time in 1810 from the Church through academic studies and examinations. Even to-day all masters of *Gymnasien* are included in this independent profession of *Philologen*. Since then, the most important sociopolitical function of this profession, its statutes and responsibility, lie in the exclusive right of awarding the *Reifezeugnis* after the final examination (*Abiturium, Maturum*). In Prussia it was possible up to 1834 to enter universities by a qualifying examination held at the university. Since then, however, the monopoly of the *Gymnasien* has been strictly enforced. During the nineteenth century new 'realistic' secondary schools (*Oberrealschulen*) were established side by side with the humanistic *Gymnasien*. Yet this increase in the various types of secondary schools and the resulting various forms of *Reifeprüfung* (leaving examination) in no way changed the fundamental principle of state legislation concerning the 'humanistic' idea of education in *all* the secondary schools of Germany.

The special meaning of education (*Bildung*) as spiritual value for life was also applied to the older types. *Bildung*, as the principle idea of German pedagogical thought, is difficult to translate. Herder and Goethe, who introduced the term into German pedagogics, meant by it a 'moral attitude' of man. One can call it *Humanitas*, or *Cultura animi*. Something special must be added, however, to explain 'maturity' in academic studies (*Reife zum Studium*). This can best be understood by the passionate protest of early German neo-humanists against the utilitarianism and pragmatism of the pedagogics of 'the enlightenment'. The decisive value of a school subject since then does not lie in its practical application, but in its educational value (*Bildungswert*). That means knowledge which forms the personality of each individual (Aristoteles would say *entelechy*) or which gives the individual a special character (*formatio*). In this meaning the ancient languages are more than necessary tools for successful study in higher institutions. They must educate men in independent moral decision as well as in responsibility of behaviour and planning, which are the attributes of a research worker. This high aim can only be achieved at the university level if the *Gymnasium* has laid the proper foundation. The history of the secondary school system in Germany shows how this idealistic interpretation of education was not subsequently fulfilled during the nineteenth century. Following the particular social and political trends of the time, the idea of *Bildung* became more an expression of the special content of knowledge which was offered by higher institutions. As a result, public opinion of the German middle class of that period did not accept the old statement of Pestalozzi and W. von Humboldt that the German *Volksschule* was also a place of *Bildung*. Consequent upon the many tensions produced by rapid industrialization, a new and very dangerous division of the population into 'educated' and 'uneducated', as two different social classes, was added. Yet one should not overlook that many very able children were admitted to the German *Volksschule* up to 1918, both in urban and rural areas. A direct ascent from the *Volksschule* to a liberal profession, until the end of the First World War, was only possible through a teachers' training college, which in spite of its high standards did not belong among secondary schools. It was a vocational institution, which did not lead in any direct way to the university.

If we take into consideration that after 1908 the new state secondary schools for girls were given parity with the old schools for boys established during the last century it will be clear how tenacious the tradition was. Under Hitler's centralization all secondary schools were still more unified in 1938. They were uniformly named *Oberschulen* and all included Latin as a compulsory subject. In 1957 all *Länder* of the Federal German Republic adopted the name *Gymnasium* for all secondary schools for both sexes, a fact which underlines the strength of tradition in Western Germany. The original German idea of secondary education (*höhere Bildung*), although partly reformed, has remained in the exclusive-idealistic character of the *Gymnasien*. Nevertheless they have lost the character of being class schools for property-owning social groups, of which they were formerly accused with great exaggeration by the political Left.

To-day the anxiety of many families has shifted to the examinations after the fourth year of primary school. The parents see in these examinations a decision for economic up- or down-grading in society for their children. Of those who are accepted in the *Gymnasien* only a small proportion pass the *Reifezeugnis* and thus are able to enter universities. A system of permanent control and examinations during nine years in the *Gymnasium* continues this selection. Since 1945, as happened after the First World War, the pressure to get into a *Gymnasium* has been very great. The same happened to the Intermediate Schools without Latin which award an intermediate certificate (*Mittlere Reife*) after ten years of school attendance. The experience of two generations shows clearly that capital which has been saved can be lost through inflation. But the capital of educated young persons is a sure investment secure from economic crises. If to-day some German industrial workers are better paid than some educated men, still public opinion, even of the workers themselves, considers the value of an 'educated' profession much higher. It is important that the change in the methods of production of modern industry demands well trained technicians in greater numbers, especially those fulfilling intermediate functions. These technicians are trained in the German technical schools (e.g. schools of engineering and building). Politicians and industrialists, influenced by world trends, particularly in the Soviet Union, England, and U.S.A., demand fundamental reforms in order to bring into active production the reserves of ability which in Germany are not tapped by the present exclusive channel to higher education. Political and economic motives are reinforced by pedagogical reasons, although here the necessity is narrowed down to the group of engineers. The pedagogical reasons, in distinction to others, are first directed to the young people themselves in order to help them. The aim is to promote their individual and personal abilities and inclinations. And as the traditional ways do not give full justice to these requirements, pedagogical thought is in search of new possibilities. Thus in discussions of the 'second way' the pedagogical reasons go further than the immediate needs of industry. This situation leads to a clear distinction between two movements. One is linked to industrial needs and is utilitarian, the other is closer to humanist thought. It could be said that the latter is in no way contradictory to the ideas of W. von Humboldt, but after one hundred and fifty years seeks to complete his work in the changed circumstances of modern industrial society.

Private Preparatory Schools and Special Examinations

Since the First World War German universities have legally admitted candidates without the *Reifezeugnis*. In 1956 this practice was extended to Bavaria. The candidates, however, were always examined by the universities themselves. Many private preparatory institutions train candidates externally outside the *Gymnasien* for the usual examinations. Side by side with adequate vocational training these schools are essentially intended to provide sufficient general education; they award what is rather vaguely called an 'ability test' or special *Reifeprüfung*. In some *Länder* these certificates admit to full academic study, in others only to specific faculties. This so-called 'faculty qualification' (*Fakultätsreife*) will be dealt with later in another connexion. The candidates, in the majority of cases, fail in these special examinations. The situation is different in the higher pedagogical institutions of Lower Saxony. Here, certainly, only the possibility for highly capable candidates to enjoy academic study is intended and not the normal way of entrance. As the *Volkshochschulen* (popular extension courses), developed after 1918, deliberately refused to undertake preparation for examinations, some people attended private institutions, either day or evening schools, which prepare candidates for various examinations. They do so under pressure of limited time and an overcrowded curriculum. By this procedure they fundamentally contradict the humanistic meaning of secondary education (*Gymnasialbildung*). They are, therefore, somewhat contemptuously called *Pressen* (coaching machines). These institutions undoubtedly fulfil a present need, but as they depend on fees they are too expensive for those with lower incomes. It was only after 1918 that the provincial and municipal authorities recognized and attempted to fulfil their responsibilities in this respect.

The Evening Gymnasien

The first evening *Gymnasium* was established in Berlin in 1927. Since then many towns in the Federal Republic founded public evening secondary schools for young people engaged in productive work, where for two or three years they are prepared for academic study. The founder of these institutions in our secondary school system, P. A. Silberman, was influenced by the American evening high schools. They will in future undoubtedly represent the only possible way to the universities for these many young people who are already in productive work. This is, however, something different from the ‘second way of education’.

The Rôle of the German Vocational School System as a Way to the Universities

As has already been described in the YEAR BOOK, 1955, the German system of vocational schools, founded by a previous master of a *Gymnasium*, Georg Kerschensteiner, was widely developed after the First World War. It meant much more than training in practical skills for a particular vocation. Side by side with the promotion of trade and crafts the idea of these schools included humanistic education of the young person. It is an attempt to avoid Humboldt's division between vocational training and general education. In this respect *Bildung* is not meant as literary and æsthetic education. Vocational training also contains ‘educative-active incentives’ of general humanistic value. A notable pioneering influence in the field of vocational education was exercised by commercial schools, especially by the Commercial Institutes, founded after the First World War. Started in Baden and Saxony, these three-year commercial colleges were further developed after 1945 in most *Länder* of the Federal Republic. As secondary commercial schools they prepared not only for higher posts in trade and commerce, but students who were successful in their final examination had the right of entrance to higher commercial and social-economic institutions and the corresponding faculties of universities. Instruction in the narrower commercial subjects, such as administration, political economy, geography, and theory of goods (*Warenkunde*) was in no way limited to utilitarian purposes; it developed its own theoretical values. In contrast to general *Gymnasien*, a new feature of these institutions was the addition of a new academic group—Commercial Diploma teachers—to the old *Philologen*.

Characteristic of the present situation is the doubt concerning the faculty qualifications (*Fakultätsreife*) which has come to the surface again. The teachers feel the limitation of their certificate to one faculty as narrowing down the value of their work. But the students, especially those who would like to follow a field of study outside commerce, feel the limitation more acutely. If a complete *Reifezeugnis* for this new type of secondary education was demanded, it would lead to a fundamental reform of present secondary commercial schools. In those places where the transition is attempted the new type is called a Commercial Gymnasium (*Wirtschafts-Gymnasium*). By this title it is brought into line with the three existing types of general *Gymnasia* (classical, modern, and scientific). What is intended is a direct ascent from the *Volksschule* to the *Reifeprüfung*. The pupils on leaving the *Volksschule* were for long entitled to enter the two-year commercial school after an entrance examination. In the field of commercial education this day school is equivalent to the Intermediate School (*Mittelschule*), and its final certificate is equivalent to the Intermediate Certificate. With this certificate the pupil can enter the Commercial College just as the holders of the Intermediate Certificate or the pupil of the *Gymnasium* can enter the higher grades of the *Gymnasium*. In Hamburg, during the three years of commercial training for apprentices, further courses have already been established for the abler leavers from the *Volkschulen*. They are entitled to certificates equivalent to *Mittlere Reife*. At the age of 21, after they have proved their ability in vocational work, they can acquire the faculty qualification for economic studies. This is a special arrangement made by the Hamburg Evening Commercial School for Adults after two years work at the evening commercial courses. A limited qualification for academic studies can also be acquired at Engineering and Building Schools. They presume a preliminary *Mittelere Reife* or an equivalent preparatory session for the acquisition of a final certificate after six semesters of study. Graduates with marks 'very good' or 'good' are entitled to further study in Higher Technical Institutes. This admittance to Higher Institutes is limited to those candidates who possess specific ability for productive and constructive work in engineering. These engineering certificates are also recognized for further training as teachers in vocational schools or for entrance to the university and vocational Pedagogical Institutes. Undoubtedly some pupils are able to ascend in this way from the *Volksschule* to the university. The Hamburg Academy of Common Economics (*Gemeinwirtschaft*), founded in 1948, should be specially mentioned. It has the status of an academic institution, in which all lecturers have an academic education and equal status with university teachers. A two years' course leads carefully selected young people of both sexes to higher posts and functions in commercial administration, trade unions, and politics. The outstandingly capable student is able to acquire 'faculty qualification' for academic studies at the university faculties of economics and social sciences. Among the post-war institutions in the field of vocational education which can lead to the academic *Reife* we should mention the Technical High School at Stuttgart, where young people who have learned a craft are prepared in a three years' course for a qualifying certificate to enter a Higher Technical Institute.

Types of the "Second Way of Education"

In these descriptions of the "second way" of education two features predominate. There is first a definite acceptance of previous vocational training in the new types of school leading to a *Reife* in specific branches. This way conforms to 'faculty qualifications'. Secondly, it should lead to a wide academic qualification. Thus the work of the traditional *Gymnasium* must be incorporated. Here we see the same influence which led the commercial secondary school to become a Commercial *Gymnasium*. In contrast to the evening *Gymnasium*, the second way should mean: strict selection of pupils, the elimination of vocational work and concentration of all mental abilities on intensive work in the short period of two years leading to the acquisition of a wide academic qualification (*Reifezeugnis*).

Brunswick College

This institution in Lower Saxony selects students in connexion with the psychological institute of the Brunswick Higher Technical School. Although *Mittlere Reife* is not a condition of admittance, equivalent general education must be proved. In contrast to other institutions, this College does not link its instruction with the previous vocation of the young person. Thus the work approaches closely the idea and the task of the older Evening *Gymnasium*. The examination results are very promising and have proved an adequate preparation for university studies. There is no opposition to planning a preparatory course in vocational schools for admittance to the College. From recent experience, however, it is not yet decided whether to admit capable candidates who have prepared themselves quite independently.

The Propädeutikum *in Wilhelmshaven*

A new higher educational institution was founded in 1948 in Wilhelmshaven (*Hochschule für Sozialwissenschaften*) to train those students who have proved their ability in practical vocational studies. Since 1952 the preparatory department was separated from the Higher Institute and was made independent under the name of *Propädeutikum*. The course continues for two years and presupposes *Mittlere Reife*. As compared with a *Gymnasium* social sciences replace natural sciences in the curriculum, but vocational work is intellectually deepened and made part of the course, and thus a complete *Reife* examination is achieved.

The Oberhausener Institut

Established in 1953, this institute stands in the centre of the whole problem. The conception of this Institute is to serve simultaneously vocational training and humanistic education. For this purpose it aims to build up an advanced course for the *Volksschule* leavers. This "second way" is more accessible to lower social groups and is pedagogically adapted to individuals who are practically inclined and whose intellectual interests develop much later. In addition this way is rightly called 'wastage free', as each block of work is complete in itself and can serve as final, without creating those half-broken situations from which some pupils of the *Gymnasium* suffer throughout their lives because of school failure. To eliminate overwork and to maintain interest only those are admitted who possess an 'apprenticeship certificate' (*Gesellenbrief*) or a certificate of a skilled worker in industry (*Facharbeiterbrief*). It is important to note that this institution belongs entirely to the vocational system. In distinction to the Intermediate Certificate of *Mittelschulen*, legislation in 1956 introduced an equivalent vocational school certificate (*Fachschulreife*). Those who wish to continue their education can enter a higher stage which has a double form. First, the engineering and building schools or some other secondary technical school, in which the student can qualify for higher intermediate functions. Secondly, the *Oberhausener Institut* presents a new type of higher stage which corresponds to the upper grades of the *Gymnasien*. The special feature of its curriculum is the inclusion of political economy and sociology as main subjects (in contrast to the *Gymnasien*) alongside the old-established subjects—German, Latin, English, mathematics, natural sciences, philosophy, and religion. Thus it is similar to the *Propädeutikum* of Wilhelmshaven. Reports about the results of the students' studies and their vocational work are very promising. A second institution of this kind has been established in Dusseldorf. It will not be the last.

The Oberhausen experiment shows clearly how far it was justified not to stop at the faculty qualification, as was at first attempted by the "second way of education" in the vocational system. Here all the regulations envisaged the award of a complete academic *Reife*. In Oberhausen, however, students were free to alter their original plans, and this was eased by boarding facilities. For example, a merchant who intended to study political economy changed to medicine and a craftsman who intended to work for a Diploma in Engineering turned to social sciences. Especially remarkable is the trend towards the teaching profession. Often more than half of Oberhausen students are attracted to education, which unfortunately has lost its popularity among the pupils of our *Gymnasien*.

In conclusion, one can say that the organization of the "second way" will benefit all school organizations in the Federal Republic. In future, parents will be able to leave their capable children in the *Volksschule*. It will not be 'creamed' any more, as if it is a blind alley of education. It is hoped that it will lose the odium of a 'camelhump' for candidates rejected by the *Gymnasium* or *Mittelschule*.

The vocational schools have a new, pedagogically attractive and socially important task—to lead capable young people to vocational school *Reife*. The *Gymnasien* as purely academic schools can continue to promote the theoretical, speculative abilities of their pupils. The "second way" undoubtedly secures for all other abilities better promise of success. Society, state, and learning will all benefit.

LUDWIG KIEHN.

CHAPTER THREE

Relationship between Secondary Schools and Universities—India

In any sound, well-planned educational system the three stages of education—elementary, secondary, and higher—are organically related to one another so as to form an integral whole. Elementary education is the foundation on which secondary education rests—from the elementary school the pupil should go on to the next stage without any abrupt change in the nature of his work or programme of activities. Again, though higher education has functions of its own which demand methods of study and instruction different from those that are associated with secondary education, the learning experiences provided at both these stages aim, in appropriate ways, at widening the student's mental horizon and preparing him for life and for active citizenship. Moreover, the standards of education in the university depend to a considerable extent on the quality of teaching imparted in the secondary school, while the quality of that teaching is, in its turn, largely determined by the efficiency of the teachers who graduate from, and receive their special training in, the university. Secondary education and university education, therefore, continually act and react on each other.

Examinations and Secondary Education

In spite of its close relationship with higher studies, secondary education is regarded by educationists as a stage complete in itself with its own aims and purposes. In all advanced countries, the end of the high school course marks for a very large number of children the termination of their period of 'formal' education. A comparatively small percentage of these pupils go to college for further studies. The majority pass out, after a period of apprenticeship or training in some cases, into different occupations and fields of employment—unless they pass through a period of unemployment—and assume the normal responsibilities of citizenship. In India, unfortunately, secondary education has, for nearly a hundred years, been dominated by a public examination which controls entrance to the universities. This examination was first known as the "Entrance Examination"—a name which clearly indicated its scope and purpose. Later on, it came to be called the "Matriculation Examination"—another name for the same thing. The Matriculation Examination was formerly conducted by the universities alone, and is still so conducted in a few States. But, in recent years, autonomous Boards of Secondary Education have been established in several regions and now control what is generally called a "School-leaving Certificate Examination". But, to quote the words of the Secondary Education Commission appointed a few years ago to survey the problems of secondary education, the change "is more nominal than real. Even now, most of the pupils who sit for this examination aspire to join college. If they do not, or cannot do so, it is entirely due to financial reasons. The demands of collegiate education still hold sway over the entire field of school education in India".

The domination of the Matriculation Examination has a history behind it. It can be traced back to the establishment of the first three universities at Calcutta, Bombay, and Madras in 1857, which marks the beginning of the era of modern education in India. Though institutions of higher studies were in existence before this time, colleges in the modern sense of the term may be said to have started after that year. These could admit only such students as had passed the entrance examination held by the universities to which they were affiliated. From then on this examination came to control the destinies of children in secondary schools. Those who were successful joined colleges, partly because a university degree was a passport to service under the Government and partly because there were few alternative openings after the high school course. Failure at the examination assumed the proportion of a catastrophe. It branded unsuccessful candidates, as it were, for life, and often prevented them from pursuing a respectable and profitable career. In such a climate of opinion, secondary education could hardly be expected to become completely self-sufficient. It was merely a step on the journey to the university. The latter, thus, determined the content, the range, and even the methods of instruction in the secondary school.

The influence of the universities on high school programmes is noticeable even in educational systems which do not operate under the blighting effects of an external examination like the Matriculation. The grammar schools of England, as is well known, provide an academic course which has been tightly geared to university requirements. Even in the U.S.A., where so much educational freedom prevails, the colleges have been largely responsible for the pattern of the curriculum for the secondary schools. The smaller high schools naturally conform to this pattern more or less closely, since the meagre staff at their disposal cannot spread its energies on teaching courses other than those essential for college admission. But even in the large high schools, with their diversified programmes of studies, a number of pupils are encouraged—and sometimes even required—to take up college entrance courses though they may have no intention of prosecuting their studies beyond high school. The colleges, it should be remembered, enjoy enormous prestige as repositories of time-honoured traditions of culture and scholarship. Their courses command the respect of a large number of parents who want the schools to arrange for their children a similar kind of education, quite irrespective of whether or not they will proceed to the university.

Movements away from the Domination of University Entrance

But while the traditional purposes of secondary education have everywhere centred round college preparation, the high schools in progressive countries have been able, to a large extent, to transcend these limitations. They have accepted the challenges implicit in a world of science and technology and in the new pattern of social relationships. They have planned a curriculum that will help pupils to adjust themselves to their quickly changing environment. Their programmes tend to be based more and more on the needs, interests, and problems of youth in a dynamic social order. In India, too, several attempts have already been made to release the high schools from their bondage to the university, and some of the attempts have met with a measure of success. For example, even before India became independent, English was replaced by the mother tongue (or the regional language) as the medium of instruction at the high school stage—though it must be mentioned here that many university people regard this change as one of the main causes for the serious fall in standards at the university. (This point is, however, arguable.)

Again, the curriculum for the senior classes of the secondary schools in many States has been expanded to provide for a number of choices; and even though many of these optional courses are not very popular, they help those candidates who are not academically gifted to pass the School-leaving Certificate Examination. But, in spite of the fact that only about 50 per cent of the successful candidates in this examination proceed to the university, it would not be correct to assume that the glamour of the university degree has diminished or that the domination of the external high school examination has been greatly weakened. The creative experimentation that characterizes the programmes of many good progressive schools in the West is still very rare in India. The curriculum is cluttered up with subjects which have sometimes little relation to the needs and aspirations of our boys and girls. The schools, by and large, continue to tread the straight and narrow path leading to the university.

Secondary Education and Standards of Achievement

The Secondary Education Commission found the following defects and shortcomings in the secondary schools:

(1) The education given in the schools is divorced from life, so that when pupils pass out of the schools they feel ill-adjusted and cannot take their place effectively in the community.

(2) It is narrowly conceived and ignores various important aspects of the pupils' personality.

(3) Until comparatively recently, it gave exaggerated importance to the study of English at the expense of other subjects which are psychologically and socially more significant.

(4) It uses mechanical and lifeless methods of instruction which place a premium on cramming and which fail to develop in the pupils the capacity to think critically and to use their initiative.

(5) With the increase in the size of the classes and the fall in the efficiency of the teachers, it has failed to provide adequately for the training of character and the inculcation of proper discipline.

(6) It is weighed down by the system of examinations which paralyse creative effort and experimentation in education. "These examinations," the Report noted, "determine not only the contents of education but also the methods of teaching—in fact, the entire approach to education. They have so pervaded the atmosphere of school life that they have become the main motivating force for all effort on the part of the pupil as well as the teacher."

It would be wrong to assert that all these defects are due to the influence of college entrance requirements on the secondary schools. In fact, as has been indicated above, the control of the school-leaving examination has now largely passed out of the hands of the universities into those of Boards of Secondary Education, so that the direct pressure of the universities has decreased to some extent. But, indirectly, university domination persists, for members of examination boards, as well as the parents who select courses of studies, still regard preparation for the university as the chief goal of the secondary school. It has still not been possible to sell the idea to the university-trained person that a good, thorough education given in any reasonable group of subjects can provide a sound foundation for university education, and that it is neither necessary nor desirable to restrict the mental fare provided for adolescents to a few traditionally esteemed subjects. What is necessary to a success in a university or a career chosen at the end of the school course is a certain *quality* of mind and not a certain quantity of knowledge pertaining to certain special subjects.

The lowering of standards is one of the most acute problems facing Indian educators to-day. It is aggravated, paradoxical as it may seem, by the rapid growth and development going on in the field of education. While the *percentage* of high school leavers proceeding to the university has fallen, the tremendous expansion in secondary education, particularly in the last ten years, has led to a large increase in the number of students taking up higher studies. Before 1947, the number of universities in undivided India was 21. To-day, in spite of the transfer of the Universities of Sind and Dacca after Partition, the number has risen to 33. The total number of the colleges in the major States in the Union has increased from 578 in 1948 to about 850 in 1957. If we consider the enrolment in all the colleges and university departments, it is estimated that the number has shot up from 240,000 in the first year of independence to nearly 720,000 in 1958. This steep rise in the student population at the university stage may be regarded by some as evidence of a commendable desire on the part of the young men and women to participate in the cultural advantages provided by higher education. A more realistic view would attribute, at least, a portion of this increase to the absence of adequate and suitable opportunities of employment in industry and business for pupils completing the high school course. A successful school career does not necessarily ensure the appointment of a school leaver to a suitable post or to his securing suitable work within a reasonable period of time—hence the anxiety of the average high school pupil to enter college to secure a degree and improve his prospects. And, since it has not yet been possible to introduce any suitable techniques of selecting students for the universities, and all who can afford to pay the fees usually find admission, at least to arts colleges, a considerable proportion of them are incapable of deriving adequate benefit from higher education. The presence of these students in the institutions of higher learning results in a general lowering of standards.

The University Education Commission, appointed by the Government of India in 1948 to consider and report on various problems connected with university education, surveyed the entire field of higher education and made valuable recommendations regarding the relationship between secondary schools and universities. It reiterated the criticism that secondary education was the weakest link in our education and its reconstruction was urgently needed. It drew pointed attention to the low academic standards of the average university student, who comes to the university so ill-prepared that the work of the intermediate classes assumes something of the character of ordinary school work. A reference to the staggering number of failures each year at the Intermediate Examination of almost all the universities shows that this grim picture has not been overdrawn.

Apart from the low standard of attainment of the average aspirant for a university degree, the youthfulness and intellectual and emotional immaturity of many university entrants also contribute to a lowering of standards. While in the United Kingdom, Europe, and the U.S.A. students normally enter a university at or after the age of 18, in India it is not uncommon to see boys and girls of 15 and even 14 in the first-year classes of the arts and science colleges. The duration of the school course leading to the Matriculation or School-leaving Examination is, generally speaking, ten years in the States of northern India and eleven years in those of the south. Pupils, therefore, complete their school career at a comparatively early age and are admitted to undergraduate studies without having the maturity of mind or the background of knowledge which is essential if they are to comprehend the content of these studies. Lecturers are often forced to come down to the level of rather immature and ill-informed minds. They resort to methods of instruction which are hardly conducive to the development of habits of independent study among the students.

The undergraduates who are thus handicapped by age or inability cannot derive much benefit from the courses and inevitably act as a drag on the whole class. Many of them fail to cope adequately with the demands of a new educational environment. In any case, the first two years are a period of adjustment, and it is only in the last two years of the B.A. and the B.Sc. classes that some kind of real university work is done. It is not surprising, therefore, that the standard of achievement of the average Indian graduate is generally inferior to that of a graduate of a European or American university, though the best are as good as those anywhere in the world.

Proposals for Reform

The University Education Commission expressed the view that a student should have at least twelve years of schooling, as in many other countries of the world, before being allowed to enter the university. In some countries a specialized form of education is provided in the top classes of the secondary school for those who desire to proceed to higher education. For example, the Sixth Form of the English grammar school, intended for 17- and 18-year-old pupils, not only caps the work of the lower classes but also gives to the students special training in initiative, self-reliance, and independent study—qualities which are extremely useful in a successful university career. The Commission also recommended that no student should be admitted to a university until he had passed the Intermediate Examination, and that the first degree course of the university should take three years.

This is really an old proposal. Thirty years ago another Commission —the Calcutta University Commission which had also studied the problems of university education—held that the dividing-line between university and secondary education courses was more properly drawn at the Intermediate Examination than at Matriculation, and that the former should be a qualifying test for entrance to a university. According to this Commission, the intermediate classes of Indian universities should form a part of the final school course. It therefore recommended that a new type of institution called Intermediate Colleges should be established in which the intermediate classes would be attached to the top standards of selected high schools. In the light of this recommendation, many intermediate colleges were established in at least one State, the United Provinces (now called Uttar Pradesh); but the experiment, for a variety of reasons, has not proved a success. As the University Education Commission has stated : " The mere raising of the standard of admission to the level of the present Intermediate Examination would not by itself improve the work of the universities. We must, at the same time, make better provision for the training of students at the high school and the intermediate college level."

The Quality of Teaching

The training of students at both these levels obviously depends mainly on the quality of the teaching staff which, in its turn, is determined by the standards of instruction maintained in the universities. The teachers in the high school classes are drawn mostly from the ranks of university graduates. Again the university generally controls the training of these graduate teachers. It prescribes the syllabuses for the post-graduate training colleges, arranges for their recognition and affiliation, and sometimes provides such training in its own Departments of Education. Thus, low standards at the university affect the quality of the teaching personnel in the colleges which, in its turn, brings down the standards of the secondary schools.

It must be admitted, however, that apart from the question of university standards, the quality of teaching in the average secondary school is, generally speaking, not good enough. Because of the meagre salary a teacher receives, his unsatisfactory conditions of service, and his inadequate status in society, many graduates of competence and ability are not attracted to the teaching profession, particularly at the school level. Indeed, there is a kind of 'caste-ism' within the profession itself; as between college lecturers, secondary school teachers, and primary school teachers. Thus artificial barriers have developed between school and college and between different grades of schools. These must necessarily be eradicated before the teaching profession can hope to bring about an improvement in standards of instruction. As the Report of the International Team which studied the problem of 'Teachers and Curricula in Secondary Schools' pointed out: "The entire process of education must be looked upon as an integral whole where each stage naturally leads to the next and is integrated with it."

The Future

The foregoing account of the relationship between the secondary school and the university has underlined some of the unhealthy features that have developed with the growth and expansion of secondary and university education during the last hundred years. It has been stated that several efforts have been made in the past to remedy the glaring evils, but though some gains have been registered here and there, the central problem has remained unsolved—the problem of improving the quality of education all round by providing a broad-based, diversified, and self-contained system of secondary education. It was only with the advent of this freedom that a determined attempt was made to investigate the problem thoroughly from all angles with a view to finding certain radical but realistic solutions. Many of the recommendations made by the University Education Commission for the improvement of standards in the colleges have been accepted by the Government and are being implemented. But it is secondary education, 'the weakest link in the whole educational chain', that has come in for special notice. The proposals for reform and reorganization made by the Secondary Education Commission are now being put into effect by the Government of India and State Governments all over the country. The impact of these reforms on the pattern, content, and methods of secondary education will be far-reaching, though naturally it will take time to become effective.

The Secondary Education Commission laid stress on the fundamental principle "that Secondary Education is a complete unit by itself and not merely a preparatory stage; that at the end of the period the student should be in a position, if he wishes, to enter on the responsibilities of life and take up some useful vocation". Accordingly, it recommended the following organizational pattern for secondary education:

(1) The period of secondary education should cover the age-group 11–17.

(2) The present intermediate stage in the colleges should be abolished, and the high schools should gradually be up-graded to become higher secondary schools with one year of the intermediate course being added to them.

(3) The first degree course of the university should be of three years' duration.

(4) Multi-purpose schools should be established, wherever possible, offering a variety of courses in the humanities, sciences, technology,

commerce, agriculture, fine arts, and home science to meet the varying aptitudes, interests, and abilities of the pupils.

(5) Students who have successfully completed the practical courses should be given opportunities to take up higher specialized courses in polytechnics and technological institutions.

As will be seen, the pattern of education proposed by the Secondary Education Commission is not new. It was recommended, in a different form, of course, by the Calcutta University Commission forty years ago; for nearly four decades it has been the subject of debate and discussion! What is new, however, in the scheme recommended is a comprehensive analysis of the aims, organization, methods, and content of secondary education, of its relationship to primary, basic, and higher education, and of the inter-relationship of secondary schools of different types. Another striking aspect of the present efforts is the sense of urgency with which the Government of India has approached the whole question. The Central Advisory Board of Education, an all-India body of top-level administrators and educationists that advises the Government on matters of general policy in education, gave its general approval to the organizational reform suggested by the Commission. It recommended a pattern of education which would comprise (*a*) eight years of integrated elementary or basic education, (*b*) three years of higher secondary education with diversified courses, and (*c*) three years of university education leading to the first degree. This pattern has now been accepted—though not yet implemented—by all the State Governments and the three year degree course has been approved by most of the universities. Draft syllabuses have been prepared both in the subjects of the core-curriculum and in those of the diversified scheme of studies. With substantial financial help from the Government of India, the States have embarked on plans for the conversion, every year, of a certain number of high schools into 'multi-purpose schools'. These will provide, in addition to the traditional courses in humanities and sciences, one or more courses in practical subjects, namely: technology, commerce, agriculture, fine arts, and home science. By 1957 more than five hundred schools of this type had been established.

Thus a beginning has been made, at last, to release the secondary school from the restrictive influences that made it a mere handmaid of the university. As the plan develops, more and more schools will be able to provide a rich, varied, and challenging programme of studies, catering for the all-round development of the pupil's personality and to pupils of different aptitudes and capacities. Of course, there are many hurdles to be surmounted before the goal can be reached. Accommodation must be extended, equipment must be provided, teachers must be given the necessary training and orientation, before a large number of schools can conform to the new pattern. In the implementation of the scheme, new problems have arisen, and some practical difficulties, that were not foreseen, have cropped up. The redeeming feature in the whole situation is that, after several decades of running away from these obstacles, a concerted attempt is now being made to attack them with vigour and determination. Secondary schools are undoubtedly having a 'new deal'. It is to be hoped that, before very long, they will also have their 'four freedoms'—freedom from financial worries, freedom from rigid departmental control, freedom from the burden of oppressive external examinations, and freedom from the exacting demands of university admission.

A. R. DAWOOD.
K. G. SAIYIDAIN.

CHAPTER FOUR

Access to Institutions of Higher Learning—New Zealand

THE history of higher education in New Zealand begins in 1870 with the establishment of the University of New Zealand and its first constituent college, the University of Otago. During the remaining years of the century three other colleges were established—Canterbury University College at Christchurch in 1873, Auckland University College in 1882, and Victoria University College at Wellington in 1899. Two agricultural colleges are of university status, Canterbury Agricultural College, founded in 1880 as a department of Canterbury College and achieving independence in 1896, and in the present century Massey Agricultural College at Palmerston North.

Before the colleges were established, education above secondary level was given in a few secondary schools. These schools were in their origins mainly private foundations, though the provincial governments which were responsible in early years for the administration of the colony had frequently a share in their establishment.

This phase of private effort in education did not last long in New Zealand. This was probably due to two main causes: (1) the relatively even distribution of wealth and the absence of a substantial moneyed class, and (2) the lack of enterprise of the schools themselves. From their early beginnings, the secondary schools were, in some provinces, notably Otago and Nelson, virtually controlled by the provincial governments. Others, of which Canterbury is a good example, were Church foundations. The later development of education in the North Island meant that private institutions had much less significance in that island.

It is sufficient here to say that by 1910 the secondary schools of New Zealand had come almost entirely under the control of the government, and private secondary schools took a quite subordinate place. In recent years there has been some moderate reversal of this trend but not sufficient to make any sensible variation in an essentially state-controlled system. The chief evidence of this trend is the extension of Roman Catholic schools, both primary and secondary, to cover broadly the Catholic population. Thus at the moment the state-controlled post-primary schools cater for 81 per cent of the secondary school population, the Catholic secondary schools for 11 per cent, and the remaining private schools, including Church of England and Presbyterian schools, for 8 per cent.

New Zealand appears quite committed to this pattern and no serious variation appears in sight. While the control of secondary education was being thus decided, the University of New Zealand and its constituent colleges were concerned with establishing themselves in a modest way with the limited finances available. These finances were from the beginning almost entirely state provided. Although the University and its constituent colleges had wide legal powers, public funds were needed for buildings and the foundation of teaching chairs, among other things. So, just as the secondary school had become a function of government, so too did the university itself.

This process is a continuing one. In fact, the high cost of education at all stages makes any serious return to private endeavour almost unthinkable, and the only problem that remains is to ensure a certain freedom of educational institutions from bureaucratic interference. It is obvious that in the final analysis any absolute freedom is impossible. None the less, strong efforts have been made in the past and are continuing to-day to ensure that academic institutions shall be free to pursue educational policies without prior permission of the government.

In theory both university and secondary schools have such freedom. The University has recently revised its organization, and the original four university colleges have been raised in status to full universities. This does not mean, however, that the University of New Zealand ceases to exist. It still remains as the parent institution of new universities instead of colleges. The charters of each of these bodies give them wide legal powers, and they are free to spend as they think fit the grants made in advance by the central government. The same is true theoretically of the secondary schools. Each such school has its own Board of Governors with considerable powers. Salaries are paid by the central government and the boards act only as agents, so that in fact their financial privileges are limited to relatively unimportant incidental funds. At the same time these boards are jealous of their privileges and governments are very susceptible to their views.

Outside the University, New Zealand has no institution of higher learning carrying out specific teaching duties unless we accept the embryonic senior technical colleges, which must, however, be considered in any forecast of future policy. There are, however, a number of important institutions concerned with research. With one exception these institutions are financed and controlled by the government. The exception is the Cawthron Institute, a foundation based on a private bequest and occupied in research in biology and horticultural industries, especially tobacco growing. The other institutions are controlled by government departments. Of these the Department of Scientific and Industrial Research is the most important, conducting as it does investigations in a wide range of subjects at many centres in New Zealand. Some of these are fundamental in nature, while others are concerned with problems of agriculture and industry. Other government departments concerned with research are those of Agriculture and Forestry, while the Department of Health is concerned with research in medicine, the study of cancer being a case in point.

I stress the importance of the work done by these government departments since, although they have no teaching functions, they have an important influence on the university, both by the impact of their own original studies and by the employment they offer to university graduates and the training in research they provide for such recruits.

I made only passing reference above to the higher technical institutions. These are admittedly only in their infancy in New Zealand. A number of the larger technical schools are now being equipped to give training of a post-secondary standard to engineers and technicians. There is at present, however, no single school which devotes its whole energies to work of university standard. There is evidence, however, that in the near future such institutions will be established. In the meantime the existing technical schools do what they can by the conduct of senior classes, both day and evening, alongside the ordinary secondary programmes. There is a growing appreciation by industry of the importance of specialized technical training.

The secondary schools of New Zealand correspond more or less to what in England would be called comprehensive schools. Thus preliminary training for industry is a function of general secondary schools. In the future it is to be expected that a number of the largest of the present secondary technical schools will abandon their general classes and concentrate on higher training for industry, and that such institutions will have status approaching that of the university. Their upkeep will necessarily be very high and will be a direct burden on the state. This is not to say that industry is not prepared to make some contribution. Many of the existing schools are much indebted to enlightened industrialists who support the schools both financially and by the active part they play in school management.

Methods of Gaining Entry to Universities

By virtue of the national character of the education system, regulations governing entry to the New Zealand University are simple. Entrance is determined by accrediting or by examination. To be accredited, a candidate requires to have spent four years in an approved post-primary school and to have satisfied his principal that he is fit to undertake university studies. If his claim to be accredited is rejected by the school the candidate can present himself for a written examination along with other candidates who have not attended an approved school.

Although successful candidates can at once enter the University it is customary for a large proportion to remain at school for an additional year, with a view to preparing for the specialist studies to be undertaken later and at the same time to compete for a number of valuable scholarships and bursaries of a standard in advance of the prescriptions for university entrance. In theory the university entrant can take any university course. This freedom is of course limited by the need for specialized preliminary studies, such as mathematics for a course in physical science or a foreign language in certain literary courses. This presents no special problem, as school pupils are usually early aware of the specialized needs of the courses they intend to follow, and the final year at school is useful in making possible the beginning of new subjects which may have been overlooked. It should be borne in mind that, in New Zealand, post-primary studies began at the age of 13+, so that after four or five years of secondary education the university entrant is normally about 18 years of age.

The freedom of the entrant to follow a specialized course is further limited by the accommodation and facilities available for that course. This limitation is especially evident in the case of medicine, where the annual intake is strictly controlled and entrance is virtually competitive. Certain other courses, such as engineering and certain science subjects, are likewise subject to restrictions in some universities. The increase in rolls which are expected from the surge in the birthrate after the war may cause further restrictions, even if temporary only.

Recruitment

The secondary schools are almost the sole source of recruits to the University. The problem of recruitment for specialized schools is one of specialist preparation. Owing to the shortage of science teachers in the secondary schools there are not enough entrants properly prepared to undertake university studies in those subjects. The position is aggravated by the fact that, as we shall see later, an important fraction of science students is committed in advance to work for government departments, thus limiting the number of graduates from whom science teachers may be chosen. This, combined with the rapidly increasing rolls of the schools, creates a problem for which there is no easy solution.

From the point of view of the employing agencies the problem is so acute that many government departments have taken steps to ensure that their own specialist needs are satisfied. These measures are usually the grant of bursaries tenable in the undergraduate stages, four or five years, on the condition that the bursar works for the department on the completion of his studies, normally one year at least for each year of study. Bursaries of this nature are granted by the Education Department in the form of teaching studentships and bursaries, by the Health Department, the Ministry of Works, the Department of Agriculture, and the Armed Forces. The value of these studentships and bursaries is high, and there is a tendency for the best students to be attracted by by the financial advantages offered. Owing to the large number of scholarships and bursaries offered by the government, it is most unlikely that any student of above-average talents would be denied the opportunity of a university training. The quality of the training received is, however, dependent on the supply of good teachers, and this is of growing concern to-day.

Vocational Opportunities open to Graduates

To some extent the answer to this question is implicit in the remarks made in the previous paragraph. The main employers of graduates are government departments or associated public agencies such as education boards and secondary school boards of governors. The latter agencies make heavy demands on the University to provide staffs for schools, in particular the secondary schools. The Education Department is not itself a direct employer, but it must arrange that a steady flow of teachers is available for the schools themselves. As a department of state the Education Department has its own modest needs for such specialists as psychologists, social workers, architects, etc., but these demands are insignificant in comparison with the needs of the schools for teachers. The number of primary school teachers who have received a university training is steadily rising, but for the secondary schools substantially the total body of teachers have to be sought in the University.

In the case of teachers the vocational opportunities include appointment as head masters of schools, school inspectors, specialist teachers in training colleges, and heads of departments in large secondary and technical schools. These positions are all comparable in prestige and emoluments with the higher branches of the public service, including science specialists in the Department of Scientific and Industrial Research.

The Health Department employs an important number of doctors as public health officers, staffs of mental hospitals, and so on, and indirectly, through the public hospitals, the senior permanent medical officers of these institutions.

The Department of Scientific and Industrial Research recruits graduates annually to staff its numerous research institutions, and its work in this direction is paralleled by the Departments of Agriculture and Forestry. The Ministry of Works is easily the most important employer of engineers and architects and its engineers cover all branches of the engineering profession. Civil engineers are employed on road construction, bridge building, harbour construction, and the like. Electrical engineers are employed in large numbers in the planning of hydro-electric power stations. Mechanical engineers are needed by the Ministry but are employed more by the railways.

Architects are employed in large numbers by the Ministry of Works and deal with such matters as housing construction, building of schools, hospitals, and other public buildings, while town planning is becoming progressively more important. The Post and Telegraph Department is employing an ever-increasing number of scientists trained in electronics and telecommunications, which field it shares with the Broadcasting Department. The Armed Services likewise employ science graduates, and as I have already mentioned are taking measures to recruit their personnel at the undergraduate stage.

Of other government departments there are a number which offer important fields of employment to non-science graduates. Of these one may mention the External Affairs Department, which recruits graduates strong in languages, economics, and law. The Treasury needs economists and accountants, the Department of Industry and Commerce calls for personnel trained in the same fields. The Public Service as such calls for graduates trained in public administration, but has found it convenient to co-operate with the University in setting up a school of Public Administration at Victoria University for this purpose.

Industry in New Zealand has not yet reached the stage where a significant number of university-trained personnel may expect employment. At the same time the development of large-scale industries, such as the manufacture of paper, which is operated partly by the government and partly by private enterprise, will probably call for personnel trained either in the Universities or in the future technical institutes. The industry already employs a large number of graduates in forestry, but much greater development is to be expected in the technical side of manufacture.

In the purely private sphere there are steady avenues for employment in medicine, law, accountancy, engineering, and architecture, and at the moment it is fair to say that the demand for the services of graduates exceeds the supply. A matter of some concern to New Zealand is the drift of its university-trained personnel overseas. This is mainly a one-way traffic at the moment and aggravates the employment position in the country.

Universities and the Production of Political-social-power Élites

I have already mentioned that the public service through its association of members is jealous of the rights of all its members to preferment and appeals against appointments of individuals outside the association usually follow such appointments. The association lays much stress on seniority. The same spirit animates other large associations, such as the organizations of teachers.

In spite of this the public service looks to the Universities to provide its senior personnel. In the case of the ordinary clerical branches, university-trained personnel are recruited in the normal manner, but on appointment commencing salary is at a higher point on the scale than for non-graduate appointees. Furthermore, time devoted to full-time university study counts in full for service in such matters as retirement, superannuation, and so on. To ensure still more university-trained members the public service commissioners make generous concessions to actual employees to enable them to attend university lectures without loss of salary, and even pay university fees.

Recruitment for the specialist services is of course limited to those with the necessary educational qualifications, and the University is the normal source of such personnel. These include doctors, engineers, scientists, economists, lawyers, and the like. The sum total of the efforts to provide a highly trained corps of public servants is becoming more and more evident. The influence of the University is felt in all departments, and it is from this corps of university-trained personnel that senior positions are usually filled.

I have mentioned the action of the public service commissioners in co-operating with Victoria University in Wellington in the establishment of a School of Public Administration. This has provided a focal point for the study of administration and has already done much, not only for the good of the public service, but for the servants of local authorities also. These bodies are of great significance in New Zealand administration, comprising as they do not only city and county councils, but also local education authorities, hospital boards, power boards, drainage boards, and many other local institutions whose total membership is very large and whose importance economically is great.

The University itself is very much alive to its responsibilities in this direction. Thus the medical school acts as an agent of propaganda in public health and disease prevention. The Schools of Engineering are jealous of their responsibility as guides to industrial development, while university teachers of architecture are vocal and influential in matters of planning and design.

It is perhaps in the field of agriculture that the trained scientist appears to great advantage. New Zealand has passed through the stage of easy exploitation of virgin soil and the problems of soil fertility and increased production are urgent. It is here that a number of scientists of superior ability are assuming undoubted leadership and are gaining the respect of the farming community, who are traditionally slow to accept change.

There is evidence throughout the whole life of the community that the trained scholar is taking his rightful place, in medicine, in science, in engineering, and in agriculture. This is not to suggest that the University is committed only to the material side of social progress. The efforts in improved administration and the vastly expanded programme of education from kindergarten to university are evidence of the generality of the movement.

The University has much influence on the cultural life of the community, as evidenced by its place in music, literature, and art. In the purely political sphere the university product has not yet achieved his final status, but membership of Parliament includes many graduates already and the number will probably increase.

The Outlook for the Future

In the immediate present, New Zealand is going through a period of social and industrial change which will be reflected in the organization of society in the near future. The extension of educational facilities so that the great majority of youth with above-average ability will have access to the University should raise the cultural standards generally, and the suspicion of the 'intellectual' should tend to disappear. The University has already played an important part in this change. Its influence has been strong and should continue to increase.

H. HENDERSON.

CHAPTER FIVE

The Social Composition of University Student Bodies

THE RECRUITMENT OF NINETEENTH-CENTURY ÉLITES IN FOUR NATIONS: AN HISTORICAL CASE STUDY

SELECTION and training of talented individuals has become a primary element of social policy in contemporary societies. Belief that careers should be impartially open to talent and the desire to utilize the best abilities of citizens to assure national security have converged in a more articulate philosophy concerning human resources. Citizens in many societies have become increasingly aware of the complexity of policy-making and administration, both public and private, and have correspondingly become more favourable towards programmes designed to draw into positions of leadership all individuals with suitable capacities.

Educational policy in particular, whether at the national level or within the administration of particular universities, has come to define training for positions of leadership as one major function of the institutions of higher learning. The National Scholarships of Harvard University and the meticulous gathering of information about alumni testify to this interest.

University education is not the sole avenue to national leadership or distinction, and the role of universities in the training of an *élite* certainly varies from one society or educational institution to another. Nevertheless, considerable light can be thrown upon the processes of recruitment of the leading groups in different societies by analysis of the student bodies of higher institutions. Unfortunately, a comprehensive comparison of the characteristics of students in different countries necessitates arduous research. Studies now under way by the writer will eventually yield such a comparative picture for a large number of nations and extending over the past century.[1] Meanwhile, presentation of the materials relating to four nations on which comparable data can be procured for the same date—about 1880—will provide a bench mark for other studies and demonstrate the striking contrasts in the characteristics of students in different societies.

---

[1] A preliminary analysis may be found in the author's paper, " The Social Status of University Students in Relation to Type of Economy: an International Comparison ", in *Transactions, Third World Congress of Sociology* (1956, Vol. V), pp. 51–63.

Sources of Data

In the present article the materials relating to Harvard students are drawn from a dissertation [2] and those for Oxford and Cambridge from an earlier publication.[3] An official report by the Russian Imperial Government described the student body of all universities,[4] and for Germany there is Conrad's study of Halle University.[5]

International comparisons in this sphere, as in others, must cope with differing definitions used by the agencies compiling the data. In the present instance it has been necessary to telescope the original tabulations into fewer categories to permit comparisons. The preponderance of business and professional families at Harvard contrasts strongly with the minor representation of business families at Halle or at Oxford and Cambridge. The salient position of an hereditary *élite* and of the clergy in Russia and at Oxford and Cambridge is equally distinctive. The results, an interpretation of which follows, are summarized in one consolidated table.

Before singling out the principal conclusions from the data, it will be helpful to present the rubrics used in the original sources and to explain their rearrangement for purposes of comparison. The classifications in the Russian and English compilations have an 'estate' character; those for Germany and Harvard partake more of an 'occupational' structure. It is to be expected that the categories employed in each country reflect the character of the social structure prevailing, so far as university students are concerned.

England.—As explained in the monograph cited, the data were taken from a biographical directory, adhering closely to the status designations used there. 'Nobility' and 'gentry' were carried over into the consolidated table, as were 'business' and 'clergy'. Into the 'professional and official' category were placed English fathers engaged in law, medicine, military life, academic, and government activities.

---

[2] John B. Knox, *Business and the Professions: a Comparative Study Based upon Occupations of Graduates in Selected Classes of Harvard College* (Harvard Dissertation, 1938), Table 6. The data presented in this article refer to parental occupations.

[3] C. Arnold Anderson and Miriam Schnaper, *School and Society in England: Social Backgrounds of Oxford and Cambridge Students* (Annals of American Research, Public Affairs Press, Washington, D.C., 1952). This publication is an extension of a thesis by Miss Schnaper. The primary data are to be found in *Alumni Oxoniensis* and *Alumni Cantabrigiensis*. The monograph covered the period from 1752 to 1886, grouping the data in six time-periods. The 1870–86 category was used for comparison with the other data presented here.

[4] Russia, Central Statistical Commission, *Statistique de l'Empire de Russie*, No. 3, 1888. The report relates to 1880.

[5] J. Conrad, *The German Universities for the Last Fifty Years* (translated by J. Hutchison), 1885.

PERCENTAGE DISTRIBUTION OF PARENTAL SOCIAL STATUS AMONG STUDENTS ENROLLED IN UNIVERSITIES OF FOUR COUNTRIES ABOUT 1880

Parental Status	*Russia (All Universities 1880)*	*England (Oxford and Cambridge, 1870–86)*	*Germany (Halle University, 1877–81)*	*United States (Harvard University, 1880–81)*
Nobility	23	3	—	—
Gentry	—	30	6	—
Professional and official[1]	24	33	40	36
Peasants and farmers	3	—	7	—
Business[2]	22	4	15	46
Clergy	23	28	16	4
Labour	—	—	12	6
Other[3]	5	2	4	8

[1] *This dual label is necessitated by the usage of the Russian report. Some of the Russian nobility and the English gentry would be placed in this category were the designations more explicitly occupational.*

[2] *In Russia an uncertain share of these fathers were actually manual labourers, mainly highly skilled. Some of the Harvard fathers may have been artisan-proprietors.*

[3] *For England, labourers are included here, and it is unlikely that any labourers were concealed under other labels. This category does not include 'unknowns', all unknown cases having been subtracted out before computing the percentages in all four columns.*

'Plebians' were assigned to 'other'; this English term includes a miscellaneous set of vocations, some of which were manual labour.

Russia.—In the official report the social positions of students were tabulated in a manner both resembling and differing from the classification of the English groups. 'Hereditary nobles' and 'clergy' remain intact in the final table; a considerable proportion of the 'nobles' doubtless resembled the English gentry, and some were government officials (given the title by virtue of their position) also. The Russian 'peasants' would have been 'plebian' in England, the larger landowners falling into other categories; peasants have been kept separate for comparison with the German data. Perforce, both 'higher *bourgeoisie* and merchants' and 'lesser *bourgeoisie* and artisans' were assigned to the business category, despite the admixture of labourers in the second group. Outstanding professional men, as well as officials above a certain grade in Imperial Russia, received titles of 'personal nobility'[6]. It was the peculiar character of this Russian category that necessitated the dual heading 'professional and official' in the table.

---

[6] In speaking of the 'personal nobility' as distinguished from hereditary nobility. Florinsky points out that it "was not transferable to the children. . . . Every civil servant that reached class nine became a 'personal noble' . . . 'Personal nobility' went also with every decoration." Michael T. Florinsky, *Toward an Understanding of the U.S.S.R.* (1939), p. 38.

Germany.—'Clergy' and 'peasants' were transferred directly to the final table, and fathers who were business men, officials, professional men, or labourers were readily assigned. Large landowners were equated with the English 'gentry', though some of them may also have been officials. 'Rentiers' were classified 'other'.

United States.—The Harvard sample is the least adequate of the four in that it refers to only one school-year. In the dissertation from which the data were taken, business men, labourers, and clergy were specified. No officials were reported, most of these doubtless falling into the professional category. In the particular group studied there happened to be no fathers who were farmers.

The Harvard and Halle data are less representative of the total national student body than is the case for the other two countries. The differences among the four countries are so marked, however, as to leave little doubt that the universities had distinctive clienteles and played distinctive roles in the recruiting for national leadership.

General Conclusions

Certain outstanding generalizations from these data can be stated very briefly, to be amended and expanded as other universities and countries come under examination later.

(1) In three of the four countries a plurality of students came from the homes of officials and professional men; doubtless most of these individuals came from professional families. This proportion was as high at Harvard as in the other schools, though at Harvard business families were the leading group. The proportion of students from professional families was apparently smallest in Russia. (But note that some 'nobles' were officials and administrators.)

(2) Sons of clergymen were a major element in both English and Russian university populations. Such sons were a minor element at Harvard, less numerous than sons of manual workers.

(3) Students from business families were by far the leading category at Harvard. The slight representation of the business community among Oxford and Cambridge students at that time is consistent with the impression gained from reading the histories of English universities. While the business group is less impressive in the German picture than might have been expected (though the industrialization of Germany was not yet in full swing), the fact that in Russia sons of business men were as numerous as those from any other category may be a surprising finding—even allowing for the artisans included here.

(4) In none of these universities did manual workers or farmer-peasants supply more than a small fraction of the students. Yet none of the universities was wholly closed to these groups. Interestingly

enough, Halle had more sons from these backgrounds than Harvard, and the proportion in Russia may have been as great as at Harvard.

The sizeable ' gentry ' category in England is difficult to interpret. This was an amorphous group, other than in the strict sense of social status. Some of these fathers verged on ' noble ' status and some may have been engaged in the more genteel lines of business. In any event, the Russian and English situations most resemble each other, in considerable degree simply because of the salience in both nations of an hereditary nobility. These two countries were similar also in the outstanding role of the clergy in supplying university students. Halle resembled Harvard more than it did either of the other two cases.

Perhaps one might conclude that Russia had the most truly diversified student body, drawing approximately equal proportions of students from four main sectors of the population—groups that were far from being in accord ideologically. In England, on the other hand, the ideal of ' gentlemanly status ' was pervasive; in some respects Oxford and Cambridge, as the ' gentlemen's ' universities, enrolled the most homogeneous student body. In the Harvard student population two main groups were represented strongly, with few from other backgrounds. Some observers might argue that despite the absence of a nobility or gentry in this country, approximations to those English groups were present among both professional and business families from which Harvard at that time drew students. The commanding position of the business group at Harvard faithfully reflected the status of business men in American society.

C. ARNOLD ANDERSON.

CHAPTER SIX

Community Colleges in the U.S.A.

A Link between School and University

The community college has been labelled " as American as baseball and hot dogs ". There is no other educational institution quite like it in the rest of the world which makes the task of describing the community college for a world-wide audience a lively and interesting exercise.

The community college is yet another expression of the belief in the power of education which the people of the United States have in such abundance. It has been created in order to extend the opportunity for higher education to students who might not be able to attend a more typical college or university because of lack of money or the necessity to work or the need to remain with one's family. The community college is an expansion of the junior college to embrace the adults of the community and to offer a wider range of subjects; some authorities refer to these institutions as ' community junior colleges ', and the term is a fairly precise one. The junior college brought the first two years of college into the community; the community college strives to meet the educational needs of all community members who are above high school age.

The community college can be briefly defined as a local two-year college. To understand the institution more fully it is necessary to look in detail at its characteristics. Before discussing these, however, let us examine the number of such institutions and the size and character of the enrolment.

The Place of the Community College in American Higher Education

Higher education in the United States is offered by a great variety of institutions: state universities, private universities, municipal universities, land-grant colleges, state colleges, liberal arts colleges, teachers colleges and other professional colleges, junior colleges, and technical institutes. The U.S. Office of Education in 1953–4 reported a total of 1,871 institutions of higher education.

Statistics regarding two-year colleges of all types (both public and private) are reported each year in the *Junior College Directory* published by the American Association of Junior Colleges. This *Directory* constitutes the best single source of information regarding the extent of the community college movement, even though it includes the private junior colleges, many of which are not community-serving institutions.

TABLE I

NUMBER OF COLLEGES AND ENROLMENTS, 1900–57

School Year	*Number of Colleges*	*Enrolment*
1900–1	8	100
1915–6	74	2,363
1921–2	207	16,031
1925–6	325	35,630
1926–7	408	50,529
1927–8	405	54,438
1928–9	429	67,627
1929–30 . . .	436	74,088
1930–1	469	97,631
1931–2	493	96,555
1932–3	514	103,530
1933–4	521	107,807
1934–5	518	122,311
1935–6	528	129,106
1936–7	553	136,623
1937–8	556	155,588
1938–9	575	196,710
1939–40 . . .	610	236,162
1940–1	627	267,406
1941–2	624	314,349
1942–3	586	325,151
1943–4	584	249,788
1944–5	591	251,290
1945–6	648	294,475
1946–7	663	455,048
1947–8	651	500,536
1948–9	648	465,815
1949–50 . . .	634	562,786
1950–1	597	579,475
1951–2	593	572,193
1952–3	594	560,732
1953–4	598	622,864
1954–5	596	696,321
1955–6	635	765,551
1956–7	652	869,720

Table I, extracted from the 1958 *Directory*, gives the number and enrolment of all junior colleges.

Of the 652 institutions reported in 1956–7, 377 or 58 per cent were public, 275 or 42 per cent were private. However, the public junior colleges enrolled 776,493 of the 869,720 students, or some 89 per cent. A rough but serviceable guide would be that approximately nine-tenths of all junior college students attend community colleges.

In 1956–7, the enrolment in all junior colleges was made up of 428,511 'freshmen' and 'sophomores'; there were 441,209 special and adult students, many of whom attend part-time. Thus we see that community junior colleges are actually serving more adult students than 'regular' ones. They are indeed community-serving institutions.

Community colleges not only serve students with a wide age-range; several studies have shown that there is also a range in ability. Those students who enrol in junior college for the academic curriculum resemble in ability the students in the undergraduate years of the university and those in the liberal art colleges. (Furthermore, when the community college students transfer to the four-year institutions as juniors, they tend to do about the same quality of work as those students who have been in the four-year college all the time.) Those students who enrol in the technical vocational areas, however, range in academic ability from high to substantially lower than the academic students. It is through this breadth of offering that the community college serves a wider population than the typical college.

Public junior colleges vary in size from very small (eleven institutions with less than fifty students) to very large (eighteen colleges with over nine thousand students). The median size was 740; the average, heavily weighted by the extremely large colleges, 2,059.

The relationship of the community college to the university is that of an institution offering the first half of the normal four-year course and then sending its graduates to the university for the second half. In order to accomplish this purpose, it is necessary for the community college to parallel to a considerable extent the typical offering of the first two years of academic work; this the community college does. Over the years the two-year colleges and the universities have established quite satisfactory relationships, for the universities, overburdened with increasing enrolments and with a great concern for the specialized work of the later college years, have come to regard the two-year college with favour. State colleges also have come to share this viewpoint quite generally.

Relationships with liberal arts colleges are not as close, for liberal arts colleges are viewed as a four-year whole and the potential student is encouraged to come in at the beginning of his collegiate career rather than delay entrance. While transfers from junior colleges are sometimes accepted, they are not encouraged.

Teachers colleges and other professional schools also view their programme as a whole, and for this reason encourage students to enter at the beginning, although many such institutions will accept students later.

In sum, the community college occupies a place of increasing importance in the system of higher education in our country. As the numbers of youth and adults who aspire to a higher education grow, a mounting proportion may well find their opportunities in these local, two-year institutions. Let us examine their features more closely.

Characteristics of the Community College

1. The community college is a *comprehensive* institution. It is first of all comprehensive in its purposes—it is multi-purpose, not single-purpose. One of its purposes is to offer the typical first two years of college work so that a local student, upon finishing the proper courses, is prepared to go ahead with advanced study in the college or university of his choice. Another of its purposes is to offer preparation for certain technical vocations. Yet another is to meet the educational needs of the adults of the community. And still another is to serve the community by making the intellectual resources of the college available for the study of community problems and thus aid in community improvement.

Such comprehensive purposes demand the development of a comprehensive programme, and this the community college has done to an extraordinary extent. To fulfil the first purpose mentioned, preparation for advanced study, the offering which is typical of the first two years in college has been introduced. This includes not only work in the social sciences, the natural sciences and the humanities, but also the beginning of professional work in such fields as accounting, engineering, teaching, nursing, and the like.

Added to this typical college programme are the courses deemed appropriate for preparing certain students for careers in business, in industry, and in a wide variety of technical callings. Usually the local community college offers preparation for those occupations which are prominent in the region. For instance, community colleges in oil regions may develop programmes in oil technology; colleges in other areas may stress electronic technologies; still others may offer work in agriculture, construction technology, dental hygiene, dental laboratory technology, drafting, forestry, journalism, diesel engine mechanics, recreation, fashion design, photography, chemical technology, or hotel management—the list is indeed a long one. While a few community colleges located in large metropolitan areas such as New York or Los Angeles may offer preparation for an extensive list of vocations, the more typical pattern is an offering in a few technologies particularly appropriate for the region—perhaps as few as three or four, as many as eight or ten. But all community junior colleges offer some vocational work.

The development of educational opportunities for adults adds greatly to the comprehensiveness of the programme. This is true not only in the realm of vocational work but in other areas as well. Adults demand higher education in such traditional fields as language, literature, art, music, dramatics, and the like; also, however, they want instruction in such relatively new areas as home and family life, consumer economics, psychology of personality, and nuclear physics.

When a community college strives to help improve community life some additional programmes are added; for instance, leadership training for community workers, or courses in recreational leadership, election issues, causes of juvenile delinquency, traffic safety and driver education.

Perhaps enough has been offered to make the point that the community college is a *comprehensive* institution—comprehensive in its purposes and its programme and also comprehensive in the range of students served.

2. A second characteristic is that of *accessibility*. A number of factors help to make the local community college accessible to a wide range of students.

The first is cost. The large majority of community colleges are public institutions, supported by local taxes and state funds. A great many charge no tuition fee; where a fee is assessed it is typically a small one compared with that charged by other American colleges. The median tuition fee in 1956 for the public community colleges was just over 55 dollars.

In addition to low tuition fees, another economic attraction of the community college is the fact that students can continue to live at home; thus no *new* expense in the form of college board and room is posed as an obstacle to attendance. In addition, part-time attendance is encouraged through the offering of evening classes, thus making higher education accessible to yet another group, those full-time workers who aspire to a college education.

Geography has proven to be a major factor in the accessibility of colleges. In communities in which there is a college the proportion of high school graduates who enter college is higher than it is in communities in which no college is located. This is true even though the college is a tuition-charging one, but the gain is much greater in situations where the institution is tuition-free.

In addition to economic accessibility, a local community college also breeds a social accessibility—the idea of going to college becomes widely accepted. If our concept of higher education included only the one of a highly intellectual fare for a very small, highly selected group of students, the desire to attend college on the part of a substantial proportion of youth could not be fulfilled. Even with the breadth of programme which was previously noted, the community college faces the challenging problem of guiding each student into the most appropriate programme. Only in a country such as the United States, with its several decades of experience with the comprehensive high school, could the idea of making education beyond the high school accessible to a major portion of the population be implemented. And while there are of course problems, serious problems, in carrying out the idea, the results clearly indicate that community colleges are doing a creditable job of making opportunities accessible to a great many.

3. A third characteristic of the community college is that it is *community centred*. While this statement borders on the redundant there are some far-reaching implications of this feature.

The community college is locally supported and locally controlled. This condition fosters local interest and pride; it also means that college officials are responsive to the desires and needs and ambitions of the local residents. This leads to the introduction of some unique programmes to meet local needs; many offerings are those common to institutions of higher education. Community centredness need not mean narrowness.

Community resources are utilized, both human and physical, which means an enrichment of campus learning opportunities. Frequently students contact the realities of community life as meaningful illustrations of general social and economic problems. Specialized competencies of community members can be added to those of the faculty; frequently the general facilities of the college can be supplemented by the facilities which the social, industrial, and commercial institutions provide. And the use of these facilities and people not only enriches the programme of the college; it tends to heighten the interest of the local citizens in the educational programme.

The community college on its part can serve the community in many valuable ways in addition to offering the opportunity for higher education to the youth and adults of the region. The college faculty represents an unusual resource; it should be utilized for its uniqueness. Certainly one major contribution can be to bring the scholarship and the research ability of the faculty to bear on thorny community problems. Students can aid community endeavours. The college plant is a potential community resource, particularly for cultural, recreational, and civic events.

A community college's relationship with its community is a two-way street and there should be heavy traffic in both directions.

4. The community college is dedicated to *life-long education*. The adult in the United States finds opportunities for learning on many sides, and the community college offers only some of these opportunities. It may, however, in many communities represent two unusual if not actually unique qualities. First, the community college is an institution of higher education with the attitudes and resources which that status implies. Thus it can offer certain educational services which no lower institution can. Secondly, the community college views the community as a whole; this should lead to the planning and co-ordinating of educational opportunities to the end of community betterment. As pointed out in discussing the characteristic of comprehensiveness, the attempt to meet the educational needs of all members of the community leads to a broad programme. Space does not permit even the illustration of that breadth. The development of such programmes has become an important planning function, and many community colleges have formulated adult and community service divisions with full-time administrators devoted to the task.

5. The community college is *adaptable*. The community college idea originally involved the adaptation of the junior college by introducing higher education for adults and by aspiring to serve community needs. Communities in the United States vary greatly in their cultural, economic, and industrial life. Local colleges must adapt to these differences, attempting both to serve the local needs and to fulfil the common commitments of institutions of higher learning. This the community college has done.

The community college has also faced the necessity of adapting its programme to a range of individual differences among its students which is greater than is typical of all colleges. This it has done by introducing vocational programmes, evening courses for adults, short courses for special purposes, workshops, clinics, work-experience programmes, and the like.

Conditions will change in the future. While we do not know the nature of the changes, we do know that to survive the community college will have to continue to adapt.

RALPH R. FIELDS.

LIST OF CONTRIBUTORS

ÅKESSON, ELOF, 170, 171, 176–96
ANDERSON, C. ARNOLD, 456, 502–6
ARMYTAGE, W. H. G., 45, 69–80
BRUBACHER, JOHN S., 47, 131–41
BUTTS, R. FREEMAN, 243, 246–63
CONNELL, W. F., 46, 95–107
DAWOOD, A. R., 455, 484–93
DIXON, WILLIS, 243, 277–88
FIELDS, RALPH F., 456, 507–13
FILHO, M. B. LOURENÇO-, 174, 175, 237–41
HANS, N., 45, 58–68
HENDERSON, HUBERT, 455, 494–501
HULLFISH, H. GORDON, 364, 367–85
HUNGATE, THAD L., 244, 312–28
JØRGENSEN, F. C. KÅLUND-, 454, 457–74
KANDEL, I. L., 46, 108–21
KIEHN, LUDWIG, 455, 475–83
LARBY, NORMAN, 365, 433–40
LARREA, JULIO, 47, 142–58, 365
LUKATELA, JOSIP, 47, 159–69
MANTOVANI, JUAN, 364, 365, 405–15
MEISTER, RICHARD, 45, 48–57
MONTROSE, J. L., 365, 441–53
MORRIS, SIR CHARLES, 243, 264–76
RAUM, O. F., 365, 416–32
RIESMAN, DAVID, 364, 386–404
SAIYIDAIN, K. G., 455, 484–93
SHAHLA, GEORGE D., 245, 334–61
THABAULT, ROGER, 173, 197–210
ULICH, ROBERT, 46, 122–30
VAIZEY, JOHN, 243–4, 289–311
VENABLES, P. F. R., 174, 224–36
VICK, F. A., 81–94
VOLPICELLI, LUIGI, 245, 329–33

INDEX

A

ACADEMIC freedom, 12, 13, 15, 16, 23, 24, 26, 40, 42, 124, 243, 256, 428
ACADEMIC prestige, 38, 39, 58, 107, 122–30, 246, 350
ACT, Avellaneda 1885, 405–6; 1919 Astier, 203; Brazilian, 215; Contagious Diseases, 74; Danish Educational, 457, 458, 459, 460, 462, 467, 469, 470, 471, 472, 474; 1815 English Education, 69; 1902 English Education, 277; 1944 English Education, 25, 41, 225, 278, 303, 456; 1958 Finance, 234; Financial Relations, 421; Local Government Finance, 229; Married Women's Property, 74; 1862 Morrill, 109, 112, 237, 369; Rhodes University, 422; South African Separate University Education, 365; 1923, 421; 1955, 421; Swedish, 183; University of London, 78; University of South Africa, 424; Yugoslav, 163, 169
ADVANCED studies, 25
AFRICA, 6; East, 433–40
AGRICULTURAL training, 58, 59–60, 73, 337, 338
AIRWAYS in Brazil, 219
ALBAN affair, 5
AMERICA, 23, 25, 75 (see also U.S.A.)
AMERICAN Association of University Professors, 374, 375, 379, 380, 381, 382, 384
Apartheid, 4, 365, 430
APPRENTICESHIP, 462
ARGENTINA, 17, 19, 20, 142–58, 364, 405–15
ARMED forces, Brazilian and science, 218; New Zealand, 499
ASIA, 6
ATOMIC energy, 23
AUSTRALIA, 6, 95–107, 441, 447
AUSTRIA, 48–57, 63, 64, 65

B

BASUTOLAND, 420, 425
BELGIUM, 60, 66, 72
BOLIVIA, 150
BRAZIL, 150, 174, 211–23
BURMA, 2, 5, 17, 21

C

CANARY Islands, 19
CHANGE, in intellectual climate, 75, 211, 264
CHILE, 146, 149, 153
CHINA, 21, 37
CHRISTIANITY, 59, 60, 177, 338, 349, 350, 351
CHURCHES, 45, 48, 59, 170, 247, 248, 249, 283; Anglican, 350, 423; Baptist, 423; Calvanist, 248, 249; Congregational, 350, 423; Dutch Reformed, 423; education, 350; of England, 70, 71, 283, 495; Ethiopian, 423; Greek Orthodox, 350; Lutheran, 423, 461; Methodist, 283, 428, 441; Moravian, 423; Presbyterian, 344, 347, 349, 351, 441, 495; Protestant, 61, 123, 124; Roman Catholic, 49, 50, 143, 207, 208, 213, 283, 425, 426, 441, 494; Seventh-Day Adventists, 352; and state, 5, 16; and temporal power, 15
CLASSICAL education, 110, 176, 471
CO-EDUCATION, 108, 114, 176
COLLEGES (see Universities and Colleges)
COLOMBIA, 153, 405
COMMERCIAL education, 58, 65–7
COMMISSIONS, Calcutta University, 489; Clarendon, 468; Indian Secondary Education, 492; Indian University Education, 488, 489
COMMITTEES, Barlow, 304; Goodenough, 304; Loveday, 305; Science and Technology, 305
COMMUNISM, 18, 19, 21, 25, 26, 32, 125, 159–69, 377, 379, 380, 382, 383, 384, 385
COMPREHENSIVE schools, 496
CONTINUATION schools, 182
CORRESPONDENCE schools, Australia, 99
CORSICA, 60
COSTA RICA, 150, 151
COUNCIL, National for Technical Awards, 232, 233
CRAFTSMEN, 224
CUBA, 152
CULTURAL development, 152; tradition, 347, 454

D

DECLARATION of Independence, American, 14

DEGREES, granting of, 64, 67, 128, 180, 201, 232, 233, 235; courses, 84, 86; cult, 116

DEMAND, for education, 17, 38, 64, 111–13, 131, 173, 238; for mass discrimination, 35; for professionally trained personnel, 14, 36; of society, 17; of students, 26; for teachers, 14, 183; for technologists, 170, 235

DEMOCRACY, 17, 23, 35, 47, 129, 251, 252, 409, 411, 412

DENMARK, 60, 64, 73, 454, 457–74

E

EAST, Far, 164; Middle, 334; Near, 164

ECUADOR, 150, 153, 213

EDUCATION, balance of, 73; formal, 3; freedom, 467; higher, 1–43, 131–41; liberal, 3, 9; mass, 172; mechanic arts, 9; military, 132; mining, 58; national systems, 4; proportion of national budget, 236; universal elementary, 30, 171

EGYPT, 253, 359

ELITISM, 37, 118, 151, 390, 431, 455, 462, 500, 502–6 (see also Leadership groups)

EL SALVADOR, 150

ECONOMIC policies, 4, 24, 212, 256, 454

ENGINEERING, 337, 338

ENGLAND (see U.K.)

EUROPE, 4, 5, 6, 9, 11, 12, 13, 15, 23, 30, 31, 32, 40, 42, 44, 45, 58–68, 73, 144, 149, 150, 156, 170, 173, 175, 212, 213, 244, 247, 405, 454, 456, 457, 489

F

FIFTH Amendment, U.S., 378, 379, 382

FINANCE, and higher education, 203, 222, 233, 246–7, 289–311 (see also Universities and Colleges: Finance)

FOLK High Schools, 2, 73

FORMALISM, Argentinian, 155; German, 475

FOUNDATIONS, education, 115, 116, 119, 131, 132, 220, 321, 340, 343; Hazen, 388; Mellon, 391

FRANCE, 2, 3, 16, 17, 29, 45, 49, 50, 58, 59, 65, 72, 108, 125, 128, 143, 145, 149, 171, 177, 197–210, 350, 362, 364, 405

FRANCISCANS, 405

FREEDOM to teach, 51; political, 76, 144

G

GENERAL education, 67, 476

GERMANY, 2, 16, 17, 20, 45, 50, 56, 58, 62, 66, 72, 73, 75, 96, 112, 124, 128, 143, 145, 171, 173, 174, 177, 239, 302, 454, 457–83, 502–6

GOVERNMENT support of universities, 271, 272, 320, 327, 328

GRAMMAR schools, 27, 284

GREECE, 8, 9, 10, 368

GUATEMALA, 6, 150, 410

H

HANOVER, 51, 60, 61, 124

HIGHER Education in U.S.A., 108–121, 312–28

HOLLAND, 65, 171

HONDURAS, 150

HUNGARY, 17, 18, 19, 60, 65

I

ILLITERACY, 437

INDIA, 4, 17, 27, 32, 36, 37, 455, 484–93

INDUSTRIAL, changes, 23, 478, 496; development, 30, 33, 34, 162, 170, 175; executives, 7, 23, 24; Revolution, 29, 58, 64, 197, 208, 209, 241; society, 95, 478; support of universities, 307

INTELLECTUAL development, 52; training, 118

INTELLECTUALISM, American anti-, 47, 132, 133

IRAN, 350, 353

IRAQ, 350, 353, 359

IRELAND, 78

ISLAM, 1, 346, 347

ITALY, 8, 9, 60, 63, 65, 143, 245

J

JESUITS, 50, 405, 406

JORDAN, 349, 350, 351, 353, 359

K

KNOWLEDGE, aims of in universities, 44; basic, 102; concept of, 11; general, 1; internationalization of, 9; socialogical aspects of, 34; traditional in universities, 11

KENYA, 422, 439, 440

L

LANGUAGE, Russian, 18

LATIN-AMERICA, 1, 6, 19, 47, 62, 142–58

LEADERSHIP groups, 1, 14, 15, 27, 28, 73, 302, 313, 338, 351 (see also elitism); training, 16, 111, 313, 360, 511
LEBANON, 245, 334–61
LIBRARIES, 350, 353, 359
LOCAL Education Authorities (LEA), 281, 282, 283

M

McCARTHYISM, 378, 387
MASS, education, 41, political action, 34
MEDIEVAL cathedral schools, 460
MEDICINE, 336, 338
MEIJI Restoration, 6
MEXICO, 52, 149, 150, 153, 210, 405
MINISTRY, of Agriculture, German, 305; of Culture, 20; of Eucation, Austrian, 53, 54; Argentine, 413; Brazilian, 220; Danish, 457, 464, 466, 469, 470, 473; England and Wales, 234, 243, 281, 282, 286, 357; French, 209; Italy, 331; Lebanon, 360; New Zealand, 498; South Africa, 420; Soviet, 3; Spanish, 19

N

NAPLES, 62, 66
NATIONAL Association for the Advancement of Colored People, 22
NATIONAL Health Service, 304
NATIONAL Union of Teachers, Danish, 457
NEW ZEALAND, 101, 441, 455, 456, 494–501
NICARAGUA, 150
NIGERIA, 21
NORTHERN IRELAND, 449
NURSING, 336, 338, 345
NYASALAND, 423

O

OFFICE of Education, U.S., 317, 507

P

PANAMA, 150, 153
PARAGUAY, 150
PARLIAMENT, 269, 308
PART-TIME students, 103
PERU, 6, 142, 213, 405
PHILOSOPHERS, modern, 10
POLAND, 8, 9, 17, 18, 19, 62
POLICY, determinants of university, 23, 246, 247, 252, 253; educational, 502; makers of, 363
POLITICAL, apathy of students, 393; climate, 45; power, 5
POLITICS, 21, 256; and changing conditions, 13; and universities, 16
PORTUGAL, 62, 66, 213
POST-GRADUATE studies, 168, 171
PRESTIGE jobs, 27, 28, 114, 123
PROFESSIONAL, associations, 459; classes, 454; codes, 11, 12; courses, 103; families, 19; schools, 98; status, 15; training, 3, 11, 24, 30, 39, 47, 48, 52, 71, 101, 111, 115, 117, 119, 128, 132, 150, 151, 170, 197–210, 278, 331, 360, 414, 433
PROFESSIONALISM, 17, 28
PRUSSIA, 50, 73, 124, 174, 475
PUERTO RICO, 150

Q

QUAKERS, 350, 388

R

RACIALISM, 18, 22
REFORMATION, 45, 50, 58, 247, 460, 470
RELATIONS, between Institutes of Higher Learning, 454–513
RELIGIOUS affiliations, 346, 347, 350, 356, 368, 423
RENAISSANCE, 49, 143, 197, 368
REPORTS, Barlow, 235; Burnham, 234; Duminy, 424; Jacob, 389, 390, 391, 397, 398, 399, 401, 403; Kelsall, 309; McNair, 278–9, 282, 287; Percy, 225, 226, 227, 231; Royal Commission on University of Tasmania, 444
RESEARCH, educational 43; freedom of, 51; New Zealand, 501; scientific, 10, 11, 64, 96, 105, 119, 130, 201, 216, 233, 339, 346, 367, 391
REVOLUTION, American, 51, 174; economic, 137; French, 61, 65; of 1830, 463; Industrial, 173
RHODESIA, 422
RUSSIA (see U.S.S.R.)

S

SALARIES of teachers, 363
SAN SALVADOR, 410
SCANDINAVIA, 2, 62, 65, 143
SCHOLARSHIP, concept of, 11, 119
SCHOOLS of, Agriculture, 61; Engineering, 60, 62; Mining, 61; Veterinary Science, 59, 61
SCIENTIFIC education, 113, 131, 176
SECONDARY education, 25, 278

SEGREGATION, 416–32

SLAVERY, 212, 214, 250

SOCIAL, activities, 136, 164; change, 314; demands, 7, 29, 244; factors, 454; justice, 14; management, 163; mobility, 74; origin of students, 45; prestige, 5, 202; responsibility, 13; role of education, 109; science, 471; structure, 4, 454; tensions, 144; trends, 477

SOUTH AFRICA, 4, 365, 416–32

SPAIN, 6, 17, 19, 45, 47, 58, 62, 63, 64, 65, 213, 405

SPECIALIZATION, 46, 64, 103, 127, 129, 150, 471

SPUTNIKS, 131

STUDENTS, composition of bodies, 502; influence of, 2, 8; reactions, 17–23; -teacher relations, 395

SUPREME Court, Australia, 441, 447; Tasmania, 441; U.S., 372, 373, 374, 378

SWEDEN, 60, 63, 66, 73, 170, 171, 176–96

SWITZERLAND, 128, 149, 302

SYRIA, 353, 359

T

TANGANYIKA, 439, 440

TASMANIA, 441–53

TEACHERS, competence of, 146, 157, 172, 221; content of training of, 31; pupil ratio, 439; secondary school, 30; shortage of, 25, 183, 192, 498; specialized, 184; training, 184, 243, 307, 330; women, 178

TECHNICAL training, 24, 58, 74, 75, 202–3, 211, 237, 238, 465; and liberal, 246, 256; autonomy of British, 277, 278; development, 212, 460; entry to, 284; institutions, 58–68, 163, 225, 306; personnel, 162, 173; specialized, 190; women, 309, 310

TECHNOLOGICAL studies, 23, 38

TECHNOLOGISTS, 26, 29, 30

TECHNOLOGY, 151

TOTALITARIANISM, 19, 21, 368, 408, 409, 411

TURKEY, 350, 351, 353

U

UGANDA, 365, 422, 433, 439, 440

U.K., 2, 5, 6, 7, 11, 12, 15, 22, 24, 26, 28, 30, 31, 41, 45, 50, 58, 59, 62, 69–80, 81–94, 105, 114, 120, 125, 145, 174, 177, 224–36, 244, 247, 264–76, 277–88, 289–311, 335, 363, 403, 435, 438, 439, 449, 468, 475, 478, 485, 489, 502–6

UNDERDEVELOPED countries, 36

UNITED Nations, (U.N.), 14

UNIVERSITY, academic services, 337, 352, 353; administration, 40, 41, 273; advantage of education, 35; advantages of mixed government, 265; aims of, 10, 76, 97, 99, 251, 252; aims of student, 402, 414; appointments, 13, 280; autonomy of, 12, 14, 15, 16, 20, 26, 33, 42, 45, 58, 67, 145, 146, 152, 209, 233, 242, 264, 265, 281, 305, 408; autonomy of teachers, 363, 373; autonomy of students, 396; challenge to existing beliefs, 369; community, 508, 512; contribution to national life, 341; control, 36, 49, 50, 63, 242–361, 320, 455, 494; courses, 286, 497; curriculum, 84, 86, 214, 286, 312, 289, 395, 425, 479, 486; demand for education in, 15, 33, 40, 82, 110, 302, 313, 436; demand in New Zealand, 498–9, 510; development of, 303; Differential Plan, 418, 419; discipline, 430; dismissal of professors, 363, 366, 373, 374, 382, 441–53; distribution of wealth, 494; endowment, 315, 321–2; enrolment, 314, 329, 338, 350, 359, 395, 417, 419, 422, 424, 435, 436, 437, 508–9; entrance examination to, 5, 26, 73, 157, 176, 313, 356, 434, 455, 476, 478, 479, 496; examinations, 12, 206, 279, 329, 496; examinations in India, 484–5; expansion of, 31, 273; extension services, 317, 319, 340; extension work, 350, 360; extra-curricular activities, 337, 346, 353; fees, 419; finance, 76–8, 97, 106–7, 163, 230, 242–361, 264, 301, 331, 436, 495; free education, 163; freedom to teach, 50; freedom, 265, 267, 268, 274, 367–85, 410, 450, 495; functions of, 95, 97, 99; geographical factor, 511; incentives to, 132; increase in population, 231, 303, 305, 307; influence of German, 251; on cultural life, 501; and intellectual life, 48; Institutes of Education, 279; medium of instruction, 429–30, 438, 486; opportunity for education, 312, 511; Organization, 32, 46, 242–361; Papal Bulls, 49; politics, 372, 387, 411–12, 431; prestige, 14, 28, 473; non-resident, 333; recruitment, 497; reform of, 143, 148–50, 197, 405, relations, with state, 23, 301; relations between university and technical college, 231; research, 332; resident instruction, 314, 316, 423; salary conditions, 301, 317; secularization of, 49, selection of students,

UNIVERSITY—*continued*
362; self-government, 9, 288; social change, 312; specialization, 497, 510; status of university personnel, 38, 40; standards, 233, 286, 490; students, African, 416, 417, 420: Asiatic, 416, 417, 420: Coloured, 416, 417, 420: women, 416, 420; conformity, 390; student-staff ratios, 304, 305, 332; systems of government, 266, 267, 280; teaching, 41, 266, 510; traditions, 5, 10, 44–169, 172, 238, 242, 246, 247, 255, 312, 390, 438; training, 24, 31; value in war, 313; veterans, 257, 313; women's, 403.

UNIVERSITY Grants Committee, 6, 42, 69, 78, 82, 91, 105, 230, 242, 243, 269–72, 274, 276, 283, 289–311, 449

UNIVERSITIES, colleges, and institutions of higher learning, Afrikaans medium, 416; Alabama, 22, 375; Alabama Polytechnic, 373, 382; Alcorn Agricultural and Mechanical, 22; American, 42, 43, 131–41, 246–63, 489; American University of Beirut, 334, 349; Antioch, 394, 395, 401; Argentine, 405–15; Athens, 1; Auckland, 494; Australian, 46, 95–107; Beirut College for Women, 334, 344; Belfast, 78; Belgrade. 160, 161, 162; Bennington, 388, 397, 402; Berlin, 123, 124; Birkbeck, 45; Birmingham, 74, 76, 78, 82; Bogota, 153; Bologna, 8, 9; Bombay, 6, 485; Brazil, 215; Brazilian, 211, 215; Brighton, 306, 307; Bristol, 70, 74, 76, 78; British Colleges of technology, 228; Brown, 112; Brunswick Higher Technical School, 481; Buenos Aires, 17, 19, 20, 145, 151, 153, 405, 406, 414; Calcutta, 485; California Institute of Technology, 38, 98, 219; Cambridge, 5, 27, 28, 29, 45, 71, 72, 75, 100, 123, 264, 265, 266, 267, 268, 274, 279, 296, 300, 301, 304, 312, 399, 402, 434, 465, 503, 505; Canterbury, 494; Cape Town, 416, 417, 421, 427; Carnegie Inst., Pittsburg, 403; Carracas, 153; Case Institute, 403; Cawthron Institute, 405; Chicago, 322; Chile, 145; 149; Church-related, 45, 108, 255, 312, 368; Colombia, 109, 112, 237, 402; Community, U.S., 108, 312, 369, 399, 456, 507–13; Copenhagen, 460, 461, 466; Cordoba, 405, 406; Cornel, 116, 389; Cuyo, 407; Dacca, 488; Danish, 177, 458, 462; Dartmouth, 111; Dundee, 78; Durham, 71, 72, 78; English, 7, 44, 46, 69–80, 101, 105, 109, 143, 171, 247, 266, 274, 289, 456; European, 11, 24, 25, 28, 29, 31, 44, 126, 127, 242, 247, 489; Exeter, 74, 82; Ferrara, 8; Fort Hare, 365, 419, 421–25, 427, 428, 430; French, 44, 197–210; German, 20, 44, 96, 114, 456, 475–83; Glasgow, 18, 22, 70; Göteborg, 178, 179, 180, 195; Gottingen, 17, 20, 124; Graz, 61; Guatemala, 61; Halle, 124, 503, 505; Hamburg Academy of Common Economics, 481; Harvard, 110, 111, 113, 114, 124, 125, 128, 132, 135, 237, 247–8, 249, 322, 368, 369, 396, 502, 503, 505; Havana, 142; Haverford, 394, 397; Hull, 82, 300; Ibadan, 21; Imperial College of Science and Technology, 2, 230; Indian, 4, 17, 36, 484–93; Ireland, 78; Italian, 149, 23–33; Italy, 8; Johns Hopkins, 99, 113 ; Junior, U.S., 108, 399, 507; Karawain, 1; Kiev, 39; King's, 71, 76, 78; Land-Grant Colleges, 38, 112, 395; La Paz, 153; La Plata, 149, 153, 406–7, 412; Latin American, 142–58; Lebanese Academy, 324, 356; Leeds, 76, 78; Leicester, 82, 300; Leningrad, 39; Leyden, 62; Lima, 405; Liverpool, 70, 76, 78; Ljubljana, 160, 162; London, 4, 45, 46, 60, 71, 74, 82, 224, 273, 279, 288, 301, 435, 438, 465; London School of Economics, 78, 388; Louisiana State, 372; Lund, 178, 179, 195; Macalaster, 397; Madras, 485; Madrid, 19; Makerere, 365, 433–40; Manchester, 70, 72, 76, 78, 82; Massachussetts Institute of Technology, 38, 98, 219, 403, Medieval European, 4, 6, 44, 48; Melbourne, 95, 96, 103, 106, 441; Mexico, 149, 153, 405; Michigan, 112, 395; Middle East College, 334; Mills, 402; Monash, 103; Moscow, 2, 39; Municipal, 369; Naples, 65; Natal, 418, 419, 427, 428, 430; National College of Horology, 2; National North-Eastern, 408; National of the Litoral, 407; National Southern, 407, Near East School, 334, 342, 348; Nevers, 2; Newcastle, 74, 76; New South Wales, 96; New Zealand, 494–501; Norwegian, 177; Norwich (Ver.), 237; North of the Alps, 8; North Staffordshire, 46, 81–94, 171, 304; Nottingham, 74, 78, 82; Oberhausener Institute, 482; Orange Free State, 416, 421; Otago, 494; Owens, 72; Oxford, 1, 2, 4, 27, 28, 29, 45, 71, 72, 74, 75, 76, 81, 82, 100, 116, 123, 264, 265, 266, UNIVERSITIES, colleges—*continued* 267, 268, 274, 296, 300, 301, 304, 312, 388, 465, 503, 505; Padua, 1, 9, 331; Panang, 153; Paris, 10, 21–22, 123; Poland, 8, 9; Porto Rico, 153; Potchefstroom, 416; Pretoria, 416; Private, 152, 509; Propadeutikum, 482; Purdue, 219; Queens, 69, 274; Quito, 153; Rangoon, 17, 21; Reading, 74; Reed, 394, 401; Rensselaer, 111, 237; Rhodes, 4; Rijeka, 162; Rio de Janeiro, 215; Roma, 1, 425; Roman Catholic, 152; Rome, 74; Royal Technical, Nairobi, 440; Russian, 456; Rutgers, 379; Salamanca, 19, 146, 405; Santa Fe, 405, 406; San Domingos, 213; San José, 151; San Marcos, 6, 142; St. Joseph, 334, 357; Santo Domingo, 405; Santiago, 153; Sarah Lawrence, 397; Sarajevo, 162; São Paulo, 215; Scandinavian, 143; Scottish, 105, 274, 297; Sheffield, 74, 76, 78; Sind, 488; Skopje, 162; Smith, 399; Sorbonne, 127, 405; Soro, 465, 466; South African, 416–32; Southampton, 76, 82; Spanish, 47, 177; Stellenbosch, 416; Stockholm, 52, 178, 179; Swarthmore, 116, 401; Swedish, 176, 178; Sydney, 98, 104, 105; Syracuse, 392, 399; Syrian Protestant College, 334; Szeged, 18; Tasmania, 366, 441–53; Technological, 38, 309; Tucuman, 407; University College, London, 70, 74, 76, 78; Upsala, 52; U.S., 386–404; Vassar, 391, 392, 394, 399, 400, 402; Victoria, 494, 500; Vienna, 50, 52; Virginia, 109; Wales, 274; Warsaw, 19; Warsaw Politechnic, 18; Welsh, 76; Wesleyan, 394, 397, 401; West Point Military Academy, 237; William and Mary, 368; Witwatersrand, 416, 417, 421, 427; Women's, 45, 108, 287, 309; Yale, 38, 111, 124, 237, 249, 322, 368, 382, 394; Yugoslavian, 159–69; Zadar, 162; Zagreb, 160, 161, 162

URAGUAY, 150

U.S.A., 1, 7, 13, 18, 22, 24, 26, 28, 34, 37, 39, 40, 41, 42, 46, 47, 96, 98, 101, 108–121, 122–30, 131–41, 149, 150, 174, 243, 244, 246–63, 268, 302, 304, 307, 310, 312–28, 332, 335, 342, 345, 349, 350, 364, 367–85, 386–404, 405, 456, 478, 485, 489, 502–6

U.S.S.R., 1, 3, 13, 18, 28, 37, 39, 45, 58, 62, 63, 64, 65, 66, 118, 120, 129, 131, 177, 239, 478, 502–6

V

VALUES, student, 394, 397, 400, 401, 437

VENUZUELA, 153

VOCATIONAL education, 137, 477, 478, 481, 482

W

WALES, 76, 78, 279, 285

WAR, American Civil, 51, 113, 235, 237; cold, 380, 388, 403; Korean, 312, 380; Minister of, 64; Napoleonic, 475; world, 96, 109, 218, 264, 368; World I, 117, 129, 161, 177, 212, 238, 239, 240, 477, 478, 479; World II, 24, 30, 31, 47, 99, 117, 118, 129, 132, 140, 159, 161, 162–3, 173, 183, 239, 240, 257, 265, 303, 313, 377, 381, 433, 475; effect on Swedish education, 187

WORKERS, skilled and unskilled, 24, 25, 26, 27

WOMEN, education of, 108, emancipation of, 69, 74, 75; graduates, 190; students, 45; teachers, 182

Y

YUGOSLAVIA, 26, 159–69

BUREAU OF EDNL. & PSYL. RESEARCH. LIBRARY